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ABSTRACT

The current status of education for 1998 is presented as an indicator report, analyzing key data that measure the health of education, monitor important developments, and show trends in major aspects of education. The report first presents three "Issues in Focus": "College Access and Affordability"; "Progress in the Educational Achievement of Black Students"; and "Progress in the Educational Achievement of Hispanic Students." Following the discussion of issues are 60 indicators of the current status of education, 10 of which are new. The indicators are organized into six sections: (1) access, participation, and progress; (2) achievement, attainment, and curriculum; (3) economic and other outcomes of education; (4) organization and management of educational institutions; (5) climate and diversity of educational institutions; and (6) financial and human resources of educational institutions. Within each section, indicators on issues in elementary and secondary education are integrated with those on issues in postsecondary education to reflect the continuity of educational experiences. The report includes the text, tables, and charts for each indicator plus the technical supporting data, supplemental information, and data sources. Appendices comprise over half of the publication and contain supplemental tables and notes, estimates of standard errors for the statistics, data sources, a glossary, an index, and a list of selected publications of the National Center for Education Statistics (NCES). (MLF)

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THE Condition of Education

U.S. Department of Education
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NATIONAL CENTER FOR EDUCATION STATISTICS

THE Condition *of* Education 1998

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Commissioner's Statement

The National Center for Education Statistics (NCES) gathers and publishes information on the status and progress of education in the United States. The congressional authorization for these activities (with antecedents to 1867) states that the purpose of the Center is to collect and report ". . . statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education"—Section 402(b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001). This law also mandates an annual statistical report on the subject from the Commissioner of Education Statistics. This 1998 edition of *The Condition of Education* responds to the requirements of that law.

Interest in education data and indicators: Federal, state, and local policymakers require a variety of information to develop, implement, and monitor policies designed to improve education. Education and business organizations, as well as community groups and citizens, generally want to know how to make and support efforts designed to bring about that improvement. Informed decisions cannot be made without valid information, however. As various groups voice their desires and concerns about our schools, NCES continually seeks to define efficient and effective measures that can meet the demands for timely, useful information, while maintaining high statistical standards. At the same time, the interest in data about new topics has not lessened the need for basic statistical information about educational institutions and trends.

Developing education indicators is one way the Center has participated in a widening national discussion about the types of measures needed to serve these diverse purposes. *The Condition of Education* is an indicator report, analyzing key data that measure the health of education, monitor important developments, and show trends in major aspects of education. Unlike most other statistics, an indicator is policy relevant and problem oriented; it usually incorporates a standard against which to judge progress or regression. Indicators cannot, however, identify causes or solutions and should not be used to draw conclusions without other evidence.

Organization of this report: The format of *The Condition of Education* is designed to present statistical information in a manner accessible to a general audience. The *Condition* first presents three Issues in Focus: College Access and Affordability; Progress in the Educational Achievement of Black Students; and Progress in the Educational Achievement of Hispanic Students. These topics were chosen because they are important to the national education policy debate. The data summarized in these essays are drawn from this report, as well as other sources, in order to construct a comprehensive statistical picture on these issues. Following the Issues in Focus are the indicators, with each one appearing on two facing pages. The first page presents statistical results and one or two tables with supporting data, while the second page presents one or more figures that illustrate the major findings of the indicator.

The indicators are organized into six sections: (1) Access, Participation, and Progress; (2) Achievement, Attainment, and Curriculum; (3) Economic and Other Outcomes of Education; (4) Organization and Management of Educational Institutions; (5) Climate and Diversity of Educational Institutions; and (6) Financial and Human Resources of Educational Institutions. Within each section, indicators on issues in elementary and secondary education are integrated with those on issues in postsecondary education to reflect the continuity of educational experiences. In addition, a discussion preceding each of the six sections provides a brief overview of the indicators in that section. Additional tables and supplemental notes that support both the Issues in Focus and the indicators follow the six indicator sections. For those interested in delving deeper into the supporting data, a companion volume is available, entitled *The Condition of Education 1998 Supplemental and Standard Error Tables*.

Indicator selection: Each year, indicators are carefully selected, and no more than 60 indicators are presented in each year's report. The indicators represent a consensus of professional judgment on the most significant national measures of the condition and progress of education at this time, but are tempered necessarily by the availability of current and valid information. The indicators presented here reflect a basic core that can be repeated with updated information on a yearly or other cyclical basis, supplemented by a more limited set of indicators based on infrequent or special studies.

The indicators presented in this report were developed using data from 25 different studies carried out by NCES, as well as from surveys conducted elsewhere, both within and outside of the federal government. Although indicators may be simple statistics, more often they are analyses—examining relationships; showing changes over time; comparing or contrasting subpopulations, regions, or states; or studying characteristics of students from different backgrounds. Data used for these indicators are the most valid and representative education statistics available in the United States today for the subjects and issues at hand.

This year's edition contains 10 new indicators, either based on recently released data or exploring new issues with previously existing data. These new indicators are integrated throughout the report:

- Internet access in public and private schools;
- Summer activities of students enrolled in grades 1–12;
- Access to higher education;
- Trends in student borrowing;
- Community service participation of students in grades 6–12;
- Adult civic involvement;
- Teachers' perceptions of student and family problems;
- Parents' involvement in children's education;
- Undergraduates who work while enrolled in college;
- Part-time instructional faculty at postsecondary institutions.

The utility of *The Condition of Education* should increase as more diverse, high quality data become available, especially as new time series data can be constructed. For example, in mid-1997 and early 1998, data on the mathematics and science performance of 4th- and 12th-grade students in 41 countries were released in the Third International Mathematics and Science Study (TIMSS). Data on early childhood education will greatly expand with the start of the Early Childhood Longitudinal Study, which will follow a sample of children from kindergarten through fifth grade, beginning in 1998. Plans are also under way for the next wave of the Schools and Staffing Survey (SASS), National Study of Postsecondary Faculty (NSOPF), and National Adult Literacy Survey (NALS). In addition, the next round of secondary and postsecondary longitudinal studies will enable us to update what we have learned from the National Longitudinal Study of the High School Class of 1972 (NLS-72), the High School and Beyond (HS&B) Study, the National Education Longitudinal Study of 1988 (NELS:88), the Beginning Postsecondary Students Longitudinal Study (BPS), and the Baccalaureate and Beyond Longitudinal Study (B&B). New data from each of these studies will help us better understand the educational experience in our nation's schools and colleges.

Availability of NCES data and information: We strive to make our products available in a variety of formats and in language that is appropriate to diverse audiences. All new NCES publications and many data sets are available on-line through the NCES Internet site at http://www.nces.ed.gov. I hope that you find this medium a useful way to access our data. In addition, the National Education Data Resource Center (NEDRC) performs special statistical analyses and tabulations of NCES data sets. NEDRC services are free of charge for state education personnel, education researchers, and others requesting special tabulations. NEDRC also distributes NCES publications and CD-ROMs containing NCES data. (See the description of NEDRC in the back for more information.)

I hope that you find the material in this document useful and invite you to send us comments on how we can improve future editions of this report.

Pascal D. Forgione, Jr.

Pascal D. Forgione, Jr., Ph.D.
Commissioner of Education Statistics

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The Condition of Education 1998 was authored by a joint NCES/Pinkerton Computer Consultants, Inc./ MPR Associates, Inc./American Institutes for Research team under the general direction of Thomas D. Snyder, Director of the Annual Reports Program and John G. Wirt, Director of *The Condition of Education* Project in the Data Development and Longitudinal Studies Group. Rebecca Pratt of Pinkerton Computer Consultants, Inc. was the managing editor for the publication. Ginger G. Rittenhouse of Pinkerton Computer Consultants, Inc. carefully edited the manuscript and coordinated the production of the volume.

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Issues in Focus

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The Educational Progress of Black Students

by Jennifer Sable, Pinkerton Computer Consultants, Inc.

Over the past two decades, students have made important gains in educational achievement and attainment. For example, more high school students are taking core courses (*Indicator 28*, 1996), and more are taking high-level courses in those subjects. More high school students are taking Advanced Placement (AP) examinations (*Indicator 27*); fewer high school students are dropping out (*Indicators* 6 and 22); and more students are attending college after they complete high school (*Indicator 7*).

While these gains are positive, they reflect only averages. When the data are broken out by students' racial/ethnic backgrounds, significant differences emerge between white and black students. Black children are likely to be at a social and economic disadvantage compared to whites for various reasons, including having parents with lower average levels of education and experiencing a greater likelihood of living with only one parent. These differences contribute to a greater likelihood of living in poverty. Because education-related gaps between racial/ethnic groups may have implications for individuals long after they have completed their formal education, it is important to examine where in the educational process these differences occur, and what factors may contribute to these differences. The reductions or increases that have occurred in the sizes of these gaps provide measures of the educational progress that black students have made in recent years in preparing for their futures and the future of American society.

Family characteristics

The family environment in which a child lives has an impact on many aspects of that child's life, including school performance.

- *Black children are more likely than white children to live in poverty, to live in single-parent households, and to live in urban areas.*

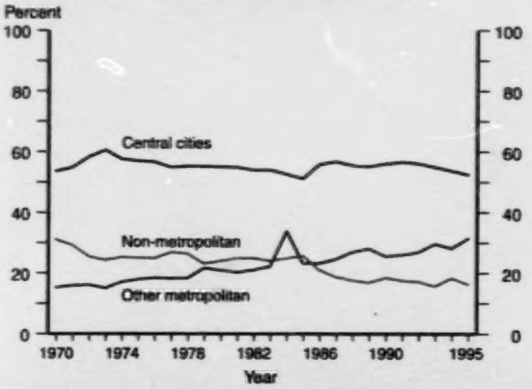
Certain family characteristics, such as family structure and poverty level, are associated with increased risk for dropping out of high school or not attending college after high school graduation.[1] Also attributable to differences in family characteristics are some differences in academic achievement.[2] Children from poor families have lower than average achievement and higher than average dropout rates. In 1995, one out of five children lived in poverty, but the average ranges widely across racial/ethnic groups. Among black and white children, the proportions living in poverty (about 42 and 11 percent, respectively) have remained stable or declined since 1980.[3]

Like poverty, living in a single-parent family is also a risk factor for academic difficulties. The percentage of children who live with two parents declined among all racial/ethnic groups between 1970 and 1996. However, black children were much more likely to live in single-parent households during this period than white children were.[3]

Where children live and attend school also is related to their risk factors for educational achievement. Recent research shows that students who attend urban schools are more likely to encounter problems that hinder achievement and attainment than those who attend schools in other areas.[4]

The majority of all blacks attending grades 1–12 in the United States live in central cities. As shown in figure 1, in 1995, 53 percent lived in central cities and 31 percent lived in the suburbs. In contrast, the majority of white students lived in the suburbs (23 percent lived in central cities and 54 percent lived in suburban areas).[5] While the majority of all blacks live in central cities, the proportion who live in the suburbs is raising (see figure 1).

Figure 1. Percentage of students in grades 1–12 who were black, by residential location: 1970–95



SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years, and October Current Population Surveys.

Teachers at schools located in central cities are more likely to report that the following are serious problems in their schools than teachers at schools located in urban fringe and rural areas: lack of parental involvement, alcoholism and drug abuse by parents, student apathy, poor nutrition among students, drug abuse by students, poor health among students, and student pregnancy (*Indicator 48*). Other problems that occur more frequently in urban schools are student behavior problems, such as absenteeism, classroom discipline, weapons possession, and student feelings of not being safe in school.[6] Problems such as these may distract students living in central cities from achieving their academic goals and place them at risk for academic failure.

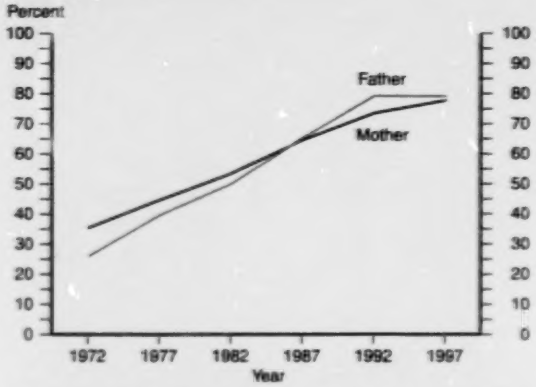
- *The educational attainment level of parents of black children has increased substantially since the 1970s.*

In general, higher levels of parental education are associated with positive educational outcomes, such as enrollment in preprimary education (*Indicator 1*), participation in early literacy activities (*Indicator 2*), parental participation in children's school-related activities (*Indicator 49*), and enrolling in college immediately after completing high school (*Indicator 9*). Between 1972 and 1997, the educational attainment of mothers and fathers of black 15- to 18-year-olds increased. During this period, the percentages of both mothers and fathers of black children who had high school diplomas, some college, and bachelor's degrees or higher increased.

Due to the rapid increase in the percentages of mothers and fathers of black 15- to 18-year-olds who earned high school diplomas between 1972 and 1997, the gap in high school education attainment rates between those mothers and fathers and that of mothers and fathers of white 15- to 18-year-olds narrowed. For example, by 1997, 78 percent of mothers and 79 percent of fathers of black 15- to 18-year-olds had attained at least a high school diploma, up from 36 and 26 percent for mothers and fathers, respectively, in 1972 (see figure 2 and *Indicator 44*). These trends in parental education levels may have contributed to the increasing levels of educational attainment and achievement of black students in the past 20 years.[2]

- *Many parents of black students are involved in their children's education.*

Figure 2. Percentage of black 15- to 18-year-olds whose mother's and father's educational attainment was at least a high school diploma: 1972–97



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Parents can help their children learn in school by attending school events and helping them with their homework. Many parents of black children attend meetings at their children's school. For example, in 1996, 86 percent of black students had parents who reported attending a general meeting at their child's school, and 87 percent had parents who reported attending a scheduled meeting with their child's teacher. Additionally, almost half of black students had parents who reported helping their child with homework three or more times per week, compared with 35 percent of white students (*Indicator 49*).

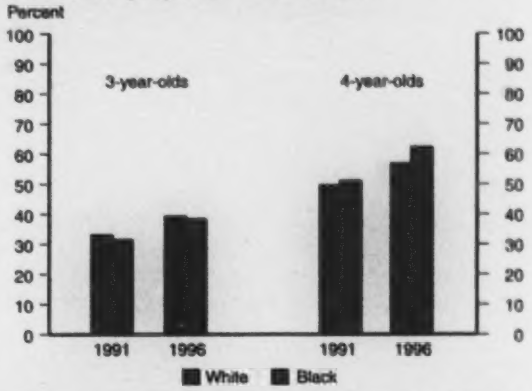
While certain aspects of black children's family environments related to educational success are good or have improved in recent years, black children are still generally at a disadvantage for educational success compared to white children based on family socioeconomic status (*Indicators 1, 2, 5, 44,* and *49*).

Preprimary education

- *White and black children have similar rates of participation in preprimary education. However, at age 4 (prior to entering kindergarten) there are differences in literacy and numeracy skills and participation in literacy activites in the home.*

Participating in early childhood programs, such as Head Start, nursery school, and prekindergarten, can better prepare a child to enter first grade. During the early 1990s, the preprimary program participation of both white and black children increased so that by 1996 similar percentages of white and black 3- and 4-year-olds were enrolled in center-based programs (see figure 3 and *Indicator 1*).

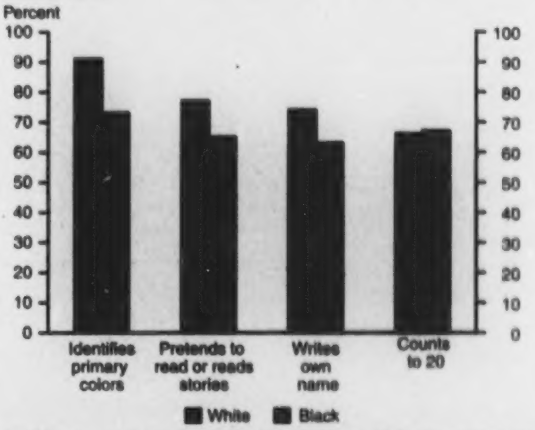
Figure 3. Percentage of 3- and 4-year-olds enrolled in center-based programs: 1991 and 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File) and 1996 (Parent and Family Involvement in Education File).

While black and white children have similar participation rates in preprimary education, blacks are generally behind whites in demonstrating early literacy skills. Emerging developmental skills of literacy and numeracy, such as recognizing letters of the alphabet, counting to 20 or more, writing first names, and identifying the colors red, blue, yellow, and green by name, vary across racial/ethnic groups (see figure 4). In 1993, 4-year-old blacks were equally likely as 4-year-old whites to be able to count to 20 or more, but were less likely to be able to perform the other activities listed.[7]

Figure 4. Percentage of 4-year-old preschoolers with reported signs of emerging literacy and numeracy skills: 1993



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Approaching Kindergarten: A Look at Preschoolers in the United States*, National Household Education Survey (NHES), 1995.

Other literacy activities that provide children with valuable developmental experiences include being read to at home and visiting the library with a family member. Family participation in these activities may promote learning and the development of literacy skills for the child. In 1996, over 80 percent of children ages 3–5 were read to or told a story in the past week by a parent or family member, and 38 percent had visited a library in the past month. While many black children participated in these early literacy activities, white children ages 3–5 were more likely to have participated in all of these activities than black children (*Indicator 2*). These differences in literacy activity participation rates, coupled with differences in family background and other factors, may contribute to the differences seen in the emergence of early literacy skills.

Achievement

- *Gaps in the academic performance of black compared with white students measured at age 9 persist through age 17. However, the gaps in reading, mathematics, and science have narrowed over time.*

While the achievement levels of blacks in reading, mathematics, and science remain behind those of whites in 1996, the performance of black students on the NAEP achievement tests in these subject areas has increased over time, both in terms of absolute achievement levels and in comparison with whites.

In 1971, black 9-, 13-, and 17- year-olds trailed their white counterparts in reading proficiency scores by 44, 39, and 53 points, respectively. These scoring differences mean that black 17-year-olds had an average reading proficiency score that was lower than that of white 13-year-olds. By 1996 these gaps had narrowed to 30, 31, and 29 points, indicating that black 17-year-olds had an average reading proficiency that was equal to that of white 13-year-olds.

In mathematics proficiency, a gap of 35 points existed between black and white 9-year-olds in 1973 (the first year of assessment), while gaps of 46 and 40 points existed between blacks and whites for 13- and 17-year-olds, respectively. As with average reading proficiency, these scoring differences mean that black 17-year-olds performed below the level of white 13-year-olds, while black 13-year-olds had an average mathematics proficiency that was similar to that of white 9-year-olds. By 1996 these gaps had narrowed to 25 points for 9-year olds, 29 points for 13-year-olds, and 27 points for 17-year–olds. The reductions in black-white proficiency score differences have been similar in science and still in the same positive directions between 1973 and 1996. There are no consistent trends in writing score differences between blacks and whites between 1984 and 1996 (*Indicators 16, 18*, and *19*).[8] Despite these gains, the levels of black academic achievement, as measured on the NAEP assessments, remain behind those of white students in all four subjects (see table 1).

Table 1. Average proficiency scores: 1996

	Age 9		Age 13		Age 17	
	White	Black	White	Black	White	Black
Reading	220	190	267	236	294	265
Mathematics	237	212	281	252	313	286
Science	239	202	266	226	307	260
Writing	216	182	271	242	289	267

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1997; Mathematics, 1969 to 1996; Reading, 1971 to 1996; Writing, 1984 to 1996*, 1998.

As indicated by the similarity of these proficiency score differences across subjects by age, most of the amounts by which black students are behind white students at age 17, they are behind at age 9 (see table 2). In reading and mathematics the amounts by which black students are behind at age 17 are essentially the same as they are at age 9. In science blacks are 9 score points further behind at age 17, as compared to 37 points they were behind at age 9. In writing black students increase their scores by 13 points at age 17 relative to white students compared to the 35 points they were behind at grade 4. This suggests the importance of preprimary and early primary education for black students.

Table 2. Average differences in proficiency scores between blacks and whites: 1996

	Age 9	Age 13	Age 17
Reading	29	31	30
Mathematics	27	29	35
Science	37	40	47
	Grade 4	Grade 8	Grade 11
Writing	35	29	22

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1997; Mathematics, 1969 to 1996; Reading, 1971 to 1996; Writing, 1984 to 1996*, 1998.

- *Black children are more likely to show early academic and behavioral problems than their white counterparts.*

Children who experience behavioral or academic problems early in school may be more likely to require more individual time with the teacher, to disrupt the classroom environment for other students, and to experience similar problems later in school. Research has confirmed that students who have been suspended from school are at higher risk for other poor school outcomes, including dropping out of school (*Indicator 48*, 1997). In 1995, black first- and second-graders were more likely than their white counterparts to have their parents report that they had behavioral or academic problems (*Indicator 3*, 1997). By 8th- grade, black students were more likely than white students to have ever been suspended from school. These differences still existed after controlling for differences in socioeconomic status—within each SES quartile, black students were suspended at higher rates than their white counterparts (*Indicator 48*, 1997).

- *Black students differ from white students not only in test score performance but in how they spend their time outside of school in learning, community service, or other developmental activities.*

In addition to academic achievement as measured by test scores, the way in which students spend their time outside of school provides indications of the extent and quality of their personal and educational development. The way in which students spend their summer vacations is one indication of how much of their free time students devote to learning activities. In summer 1996, black students in grades 1–12 were more likely to attend summer school than white students (*Indicator 5*). Some students attend summer school to retake subjects failed during the academic year, to improve basic skills, or if they are older, to take high school or college-level courses for credit. The relatively large proportion of black students attending summer school may indicate that black students are retaking classes or improving basic skills, but it may also indicate an interest in taking advanced classes and strengthening academic skills during the summer.

Students may also pursue community service in their free time. In addition to personal and community benefits, participation in community service may help students be more competitive when applying to college. Many schools examine students' participation in extracurricular and other activities as well as their academic achievement. In 1996, 49 percent of students in grades 6–12 participated in community service activities; 26 percent participated on a regular basis and 23 percent participated once or twice. In grades 6–12, white students were more likely (53 percent) than black students (43 percent) to report participating in community service (*Indicator 25*).

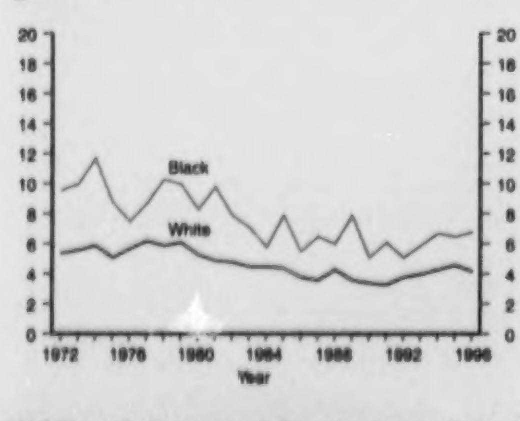
Progress in school

- *Black students are more likely than white students to repeat a grade. However, white and black students who were retained one grade or more were equally likely to drop out of school.*

Students who repeat grades are at greater risk of dropping out of school. In 1995, black young adults ages 16–24 were more likely than white young adults of the same age to have repeated one or more grades (19 compared with 12 percent for blacks and whites, respectively). However, black and white young adults who had been retained were about equally likely to drop out of school.[9]

Students who drop out of school have fewer opportunities to succeed in the work force and to assume a fully functional place in society than those who complete high school. The percentage of students who were in grades 10–12 the October of one year who were not enrolled again the following year and had not graduated from high school is known as the event dropout rate. Between 1972 and 1996, black students in grades 10–12, ages 15–24, were more likely than white students of the same age and grade to drop out of school as defined by the event dropout rate (see figure 5). However, during this period, the dropout rates for both black and white students decreased, and the gap between the dropout rates for black and white students narrowed. In 1996, 7 percent of blacks students ages 15–24 had dropped out of school in the past year during grades 10–12, while 4 percent of whites ages 15–24 dropped out then (*Indicator 6*).

Figure 5. Event dropout rates for those in grades 10–12, ages 15–24

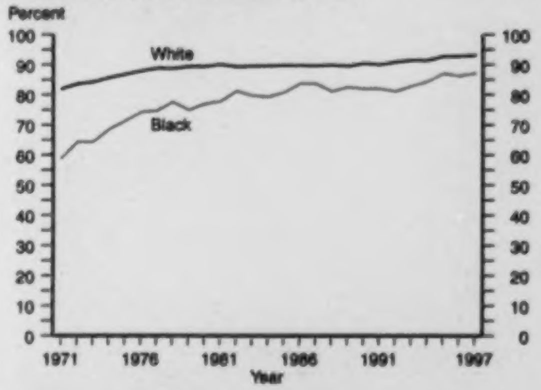


SOURCE: U.S. Department of Education, National Center for Education Statistics, Dropout Rates in the United States: 1996 (based on the October Current Population Surveys).

A broader perspective on the high school dropout problem can be seen by looking at the percentage of young adults in the population ages 25–29 who have graduated from high school or completed a GED or other high school equivalency certificate.

The percentage of the black 25- to 29-year-old population who have completed high school has risen markedly in the past 25 years from 59 percent in 1971 to 87 percent in 1997 (see figure 6). During the same period, the rate of high school completion among 25- to 29-year-old whites has increased from 82 to 93 percent. Therefore, the gap in high school completion between blacks and whites has narrowed in the past 25 years from 23 to 6 percent, as measured at ages 25–29. In relative terms, the black rate of high school completion is now 94 percent of the white rate. While this difference of 6 percent remains educationally important, the smaller gap means that the overall rates of black and white high school participation and completion were nearly equivalent in 1997. The difference in completion rates between Hispanics and whites is much larger (*Indicator 22*).

Figure 6. Percentage of 25- to 29-year-olds who completed high school, by race: March 1971–97



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

- *Black students are taking more advanced courses in the 1990s than in the 1980s.*

In general, blacks and all other students are following a more rigorous curriculum and taking more advanced courses than they were a decade ago. Students who take rigorous academic course loads during high school have higher educational achievement than those who take a less rigorous curriculum independent of their social background.[10] Students with higher levels of academic achievement are also more likely to attend college within 2 years following graduation independent of their social background (*Indicator* 9, 1997). Social background remains an important factor affecting student achievement and college enrollment, but taking rigorous courses has strong independent effects.[11]

In 1983, *A Nation at Risk* recommended that all students seeking a high school diploma enroll in the "New Basics" curriculum, a core curriculum composed of 4 years of English, and 3 years each of social studies, science, and mathematics. The percentages of both black and white high school graduates who have earned the minimum 13 credits of these core courses have increased similar amounts between 1983 and 1994, but whites remain more likely than blacks to meet the requirements of the New Basics. In 1994 the proportions of blacks and whites earning the minimum New Basics were 45 and 54 percent, respectively, while in 1982 they were 12 and 16 percent, respectively (*Indicator 28*, 1996).

- *More black students are taking Advanced Placement examinations than ever before.*

Overall, higher proportions of students are taking Advanced Placement (AP) examinations. The AP examination is associated with a demanding academic curriculum. By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects. Between 1984 and 1996, the number of students who took AP examinations increased substantially from 50 to 131 students per 1,000 12th-graders. The number of examinees increased for both sexes and all racial/ethnic groups during this period. The black rate increased from 8 to 32 students per 1,000 and the white rate went from 48 to 133 students in the same period (*Indicator 27*).

Table 3. Number of students who took AP examinations (per 1,000 12th-graders): 1984–96

Year	Total	Race	
		White	Black
1984	50	48	8
1985	59	60	11
1986	64	62	12
1987	66	63	13
1988	81	82	21
1989	88	92	20
1990	100	103	26
1991	103	107	25
1992	109	112	26
1993	117	115	31
1994	115	116	32
1995	125	125	37
1996	131	133	32

SOURCE: The College Board, Advanced Placement Program, National Summary Reports, various years (Copyright © 1996 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Postsecondary education

- *Black high school completers are less likely than whites to enroll in college and complete a baccalaureate degree.*

While the overall rates of high school enrollment and completion have become more similar for blacks and whites, differences in educational participation rates remain in the postsecondary years. Between 1971 and 1997 the rates at which both black and white high school completers attend college have been rising, but the black rate has remained behind the white rate by a nearly constant amount (*Indicator 22*).

In 1997, 68 percent of white high school completers ages 25–29 had completed some college or more compared to 54 percent of blacks, or about 69 percent of the white rate.[12] This is an absolute difference of 14 percentage points. In 1971, 45 percent of white high school completers and 31 percent of black high school completers had completed one or more years of college (a 14 percentage point difference). The black rate of high school completers attending college was about 79 percent of the white rate in 1997—a ratio that has been slowly rising from 69 percent in 1971. In contrast the black rate of high school completion was 94 percent of the white rate in 1997 (*Indicator 22*).

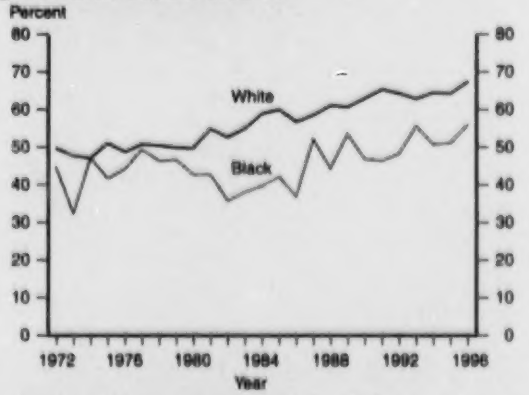
A somewhat different picture emerges for the completion of bachelor's degrees. As in the case of attending at least some college or more, both the black and white rates of completing a bachelor's degree are rising. But unlike the case of some college, the white rate is rising somewhat faster than the black rate, so the absolute difference between the black and white rates of attaining a bachelor's degree is slightly rising. Instead of closing, as in the case of high school completion, or remaining the same, as in the case of attending some college, the gap between percentages of the black and white populations completing a bachelor's degree is widening. The increases in the black and white rates of completing a bachelor's degree have been such that the black rate has remained about one half of the white rate for the past 20 years.

Between 1971 and 1997, the percentage of 25- to 29-year-old black high school completers finishing four or more years of college education rose from 12 percent in 1971 to 16 percent in 1997. The white rate increased from 23 percent of high school completers in 1971 to 35 percent in 1997. Thus, the difference in the black and white rates was 12 percent in 1971 and 19 percent in 1997 (*Indicator 22*).

- *Blacks are less likely than whites to enroll in college immediately after completing high school.*

One reason that blacks are less likely to attend college and complete bachelor's degrees is that they are less likely than whites to enroll in college immediately after graduating from high school. Most people who ever attend college enroll immediately after high school graduation.[13] In 1996, 56 percent of black high school completers compared to 67 percent of white high school completers enrolled in college the October following their completion of high school (see figure 7). The difference between the black and white rates is growing (*Indicator 7*).

Figure 7. Percentage of high school graduates ages 16–24 who were enrolled in college the October following graduation: October 1972–96



SOURCE: U.S. Department Commerce, Bureau of the Census, October Current Population Surveys.

Blacks also take longer to complete bachelor's degrees than whites In 1992–93, 60 percent of whites bachelor's degree recipients had earned their degrees within 5 years of graduating from high school, while 49 percent of blacks had done so.[14] In 1994, 58 percent of whites who enrolled in a 4-year institution five years earlier had received their bachelor's degrees compared to 44 percent of blacks.[15]

- *Black high school graduates are less likely to be qualified to attend a 4-year college than white graduates. However, when matched for levels of college qualification, blacks enroll in a 4-year college at similar rates to whites.*

Other possible explanations for lower college enrollment among black students compared to white students may be that black students are less able to afford college (*Indicator 13*, 1996) or are less well prepared to enter higher education. In order to enter higher education, students must follow a series of steps that will increase their chances of college admission and enrollment. These steps include following a rigorous high school curriculum, taking aptitude tests such as the SAT or ACT, and applying to college. Additionally, students must demonstrate minimum levels of achievement in such measures as GPA and ACT or SAT scores. In 1992, white high school graduates were more likely to be college qualified (as measured by a 4-year college qualification index based upon GPA, senior class rank, and other measures) than their black counterparts. Among college-qualified high school graduates, blacks took steps toward college admission and enrolled at 4-year institutions at comparable rates to whites (*Indicator 8* and supplemental note to *Indicator 8*).

- *The proportion of bachelor's degree recipients who earned degrees in computer science was higher for blacks than for whites.*

The choice of a college major affects the employment opportunities available to students once they have completed their education. Today's increasingly technological society requires more training in science and technology in the nation's work force. Since 1977, a higher proportion of black bachelor degree recipients than white recipients earned degrees in social and behavioral sciences, though these proportions of black degree recipients have been declining. In contrast, a higher proportion of white bachelor degree recipients earned degrees in natural sciences than did blacks. However, since 1987, the proportion of blacks earning bachelor's degrees who earned their degrees in computer and information sciences was higher than that of whites (*Indicator 29*).

Adults and work force outcomes

- *Black adults are more likely to perform at lower literacy levels than white adults are.*

The National Adult Literacy Survey (NALS), designed to profile the English literacy of adults in the United States, found that in 1992 black adults were more likely than white adults to perform at the lowest 2 of the 5 literacy levels designated by the survey. Lower literacy levels are associated with lower levels of educational attainment, higher rates of unemployment, lower earnings, and higher poverty rates. For example, on the document proficiency scale, which is one of three scales of the assessment, 79 percent of blacks compared to 43 percent of whites were at level 2 of the scale or below. The document literacy scale measures the ability to find and use information from schedules, graphs, forms, and other kinds of practical information displays encountered in the home or on the job. The average proficiency scores of blacks and whites on this scale (230 and 280, respectively) differed by 50 points, or about one proficiency level.[16]

Differences in the educational levels of the black and white populations along with other factors may explain some of these differences in the average literacy scores between the black and white populations. When level of education is taken into account, the 50 point difference in average scores on the document scale between the black and white populations is reduced by 25 percent, or about one fourth of a proficiency level. Similar reductions were found in the other two scales of the NALS assessment, which are prose and quantitative reasoning. Other important factors explaining parts of the remaining differences in the average scores of blacks and whites in the population may be differences between the two populations in age, occupation, and socioeconomic status.[16]

- *At similar levels of educational attainment, employment and earnings generally are greater for whites than for blacks.*

Employment rises with educational attainment in the population as a whole and for blacks and whites, but at most levels of educational attainment the employment of blacks is less than the employment of blacks (*Indicator 31*). Among recent high school drop outs 45 percent of whites and 22 percent of blacks were employed in 1996. Among recent high school graduates not enrolled in college, 69 percent of whites and 42 percent of blacks were employed (*Indicator 30*). At the baccalaureate level, 95 percent of white male bachelor's degree recipients ages 25–34 were employed full time, year round in 1997, and 87 percent of black recipients were so employed. Furthermore, the unemployment rate among black male college graduates in this same cohort was 7.4 percent and 1.6 percent among whites in 1997.[17]

Earnings follow the same pattern. When matched on levels of educational attainment, whites earn more than blacks (see table 4).

Table 4. Median annual earnings (in 1997 constant dollars) of full-time year round wage and salary workers ages 25–34, by sex, race, and highest education level: 1994–1996

	Men		Women	
Highest education level	White	Black	White	Black
Grades 9–11	$21,513	$17,395	$15,532	$12,732
High school diploma	26,446	21,026	19,323	16,486
Some college	29,279	26,219	23,141	21,180
Bachelor's degree	38,813	30,922	31,065	26,953

NOTE: Median earnings were calculated based a pool of all three years of data, from 1994–1996.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

While higher levels of educational attainment are associated with higher employment and income levels, educational attainment is not the only factor that determines levels of employment and income. In 1994–96, the median annual earnings of 25- to 34-year-old white male 4-year college graduates were $7,400 higher than their black counterparts, while the difference for females was $3,900.

When matched on level of educational attainment, blacks are also more likely to receive welfare than whites (*Indicator 34*).

Summary

In a competitive society that demands an informed populace and a highly skilled workforce, educational achievement and attainment are becoming increasingly important for those who wish to actively participate and achieve. Black students have made many gains in educational access, achievement, and attainment in the past 20 years. While higher proportions of black children are at risk for failure in school than white children due to socioeconomic factors, achievement scores have increased among black students over the past 20 years. More black high school students are taking challenging Advanced Placement examinations, and more black students are completing high school and attending college than ever before.

In addition to the promising gains made by black students in recent years, many gaps that have existed between blacks and whites have narrowed. For example, the gaps in levels of parental education levels between blacks and white students have decreased since the 1970s. Black students are catching up to white students in many NAEP assessments, and the dropout rate for black students has decreased faster than the rate for white students, narrowing the difference between the event dropout rates between these groups.

Despite these advances, sizeable differences between white and black students remain in terms of educational achievement and attainment. White students continue to have higher levels of educational achievement than black students do, and reap greater rewards from their educational experiences once their formal education is completed. Whites are still more likely to be employed and to earn more money when matched on educational attainment with blacks. These differences suggest that factors other than educational attainment may contribute in important ways to the differences in outcomes observed between whites and blacks. At least some of the differences appear to be linked to differences in family income, individual student achievement, and parental education.

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[12] "Some college or more" includes earning an associate degree or vocational certificate, or a bachelor's or advanced degree.

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The Educational Progress of Hispanic Students

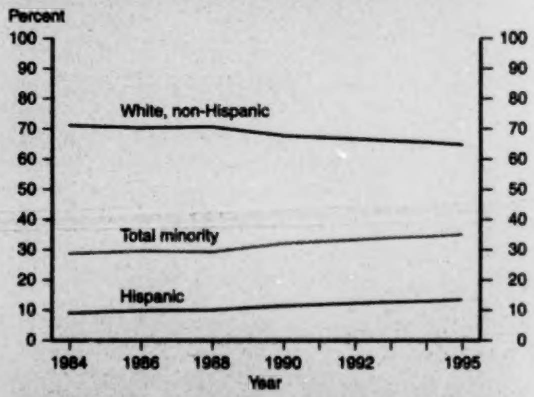
By Jennifer Sable and Janis Stennett, Pinkerton Computer Consultants, Inc.

In order to prepare American students for the types of jobs that will be available in the future, schools and parents need to work together to ensure that all students acquire the academic skills necessary to compete.[1] As the Hispanic population grows, the successful transition of Hispanic youth from school to work and active engagement in American society becomes more important for the Nation.

Racial and ethnic diversity in the United States has grown dramatically in recent years, and the growth of the Hispanic population has been a major contributor to this diversity. The Hispanic population has increased more rapidly than any other racial or ethnic group, growing from 9 percent of the child population in the United States in 1980 to 14 percent in 1996. Predictions indicate that by the year 2020, more than 20 percent of the children in the United States will be Hispanic.[2]

The increase in the Hispanic population in the United States, and the resulting rise in the enrollment of Hispanic students, has contributed to an 11 percentage point increase in minority enrollment in public elementary and secondary schools between 1976 and 1995. In 1976, Hispanic students made up 6 percent of the student population at public elementary and secondary schools. By 1995, the proportion of Hispanic students rose 8 percentage points, reaching 14 percent, the largest increase of any minority group (*table 43-1*).

Figure 1. Percentage distribution of enrollment in public elementary and secondary school: 1984–95



NOTE: Data for 1992–95 are from the Common Core of Data (CCD) survey.
SOURCE: U.S. Department of Education, Office for Civil Rights, Elementary and Secondary School Civil Rights Survey, 1984, 1986, 1988, and 1990; National Center for Education Statistics, Common Core of Data Survey, 1992; and *Digest of Education Statistics, 1995* and *1996*, table 44, and *1997*, table 45.

In general, the educational achievement and attainment of Hispanics has been lower than that of whites. Since Hispanics account for a growing percentage of the general U.S. and public school population, it has become increasingly important to understand the educational experiences and transitions to the labor force of Hispanics. Understanding the differences in educational experiences between Hispanics and whites, and how these differences have changed over time, provides an overview of the educational progress of Hispanics in the United States.

It should be noted that although limited data availability often leads researchers to treat Hispanics as if they were a homogeneous group, the U.S. Hispanic population is diverse. The three largest Hispanic subgroups are Mexican Americans, Puerto Ricans, and Cubans. Recent immigrants from Central America and South America constitute other, smaller groups. These subgroups are concentrated in different parts of the United States, their economic circumstances vary, and the timing of the immigration differs. In this analysis, overall trends for the U.S. Hispanic population are provided, as data are usually not available for these subpopulations.

Family characteristics and parent's involvement in education

A child's family characteristics and home environment have implications for many aspects of a child's life, including academic experiences. Children who live in poverty, in single-parent homes, or whose parents have low levels of educational attainment are at greater risk for dropping out of high school, not achieving at higher levels, and not attending postsecondary institutions. As differences between whites and Hispanics in these family background characteristics change, the educational progress of Hispanics compared to whites can be expected to change.

- *Both the likelihood of living in poverty and with a single parent increased among Hispanic children.*

The number of Hispanic youth under age 18 living below 100 percent of the poverty line has increased from 33 percent in 1985 to 40 percent in 1996. In contrast, the percentage of white children living in poverty has decreased slightly from 12 percent in 1990 to 10 percent in 1996.[3] The percentage of Hispanic 15- to 18-year-olds living with one parent increased from 23 percent in 1972 to 33 percent in 1997, while the percentage of whites in the same age range living with one parent increased from 12 to 22 percent (*Indicator 44*).

- *The levels of parental education among Hispanic children have increased.*

Higher levels of parent education are generally associated with positive educational outcomes and experiences, such as participation in preprimary education and not dropping out of high school. The parental education levels of Hispanic students ages 15 to 18 nearly doubled in the past 25 years. For example, in 1997, 45 percent of mothers and 46 percent of fathers of Hispanic 15- to 18-year olds had at least a high school diploma or GED, up from 24 percent of mothers and fathers in 1972. The increase for white students has been from 68 to 64 percent of mothers and fathers having a high school diploma or GED in 1972 to 92 and 90 percent, respectively, having these credentials in 1997 (*Indicator 44*).

- *Many parents of Hispanic children are actively involved in their children's educational activities.*

Parents' involvement in their children's education is another way through which the family influences educational experiences. Parent participation in their children's education is evidenced by their involvement in school-related issues and activities. In 1996, parents of Hispanic children were equally or more involved in education-related activities that directly influenced their children than were parents of white children. For example, parents of Hispanics were as likely as parents of whites to attend general school meetings, and more likely to help their children with homework during the week than parents of white children. However, parents of Hispanic children were less likely than parents of white children to participate in school activities that did not directly influence their child's education, such as attending a school event, acting as a volunteer, or serving on a committee (*Indicator 49*).

Issues of limited English proficiency

The ability to speak and read English, a problem which is not unique to the Hispanic population, is a concern for many. Spanish-speakers may have difficulty with English because they have had limited opportunities to use English. For example, Hispanic students may speak English only at school, while speaking Spanish at home and outside of school. Difficulties in speaking and reading English places students at risk for academic failure. In fact, Hispanic students who speak Spanish are more likely to drop out of high school than peers who speak only English.

Between 1979 and 1989, the percentage of Spanish speakers age 5 and older increased 65 percent in the United States. In 1989, more than 14 million people in the United States spoke Spanish. Of those who spoke languages other than English, 58 percent spoke Spanish. Of these Spanish speakers, almost half reported having difficulty speaking English.[4]

The limited English proficiency of many Hispanics is likely to serve as an important impediment to success in the educational careers and employment outcomes of Hispanic youths. Knowing the pervasiveness of this problem is important for understanding the differences that exist between Hispanics and other racial and ethnic groups in terms of educational participation, progress, and achievement.

Preprimary education

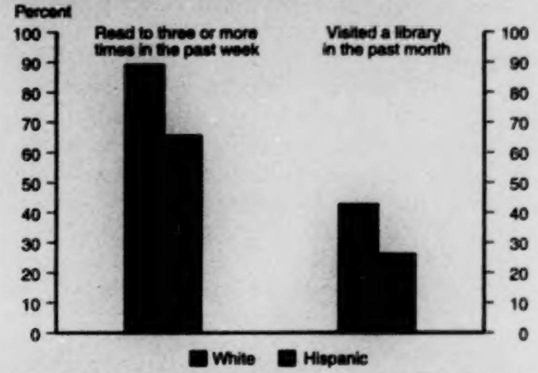
Research has shown that a quality preschool experience is an important indicator of student success. Preprimary education prepares children for school by teaching learning and socialization skills.[5]

- *The preprimary educational experiences of Hispanic children differ from those of whites. Hispanic 3- and 4-year-olds are less likely to participate in preprimary education than their white peers, and are less likely to participate in early literacy activities.*

One form of preprimary education is organized preprimary programs, such as Head Start or prekindergarten. In 1996, about 22 percent of Hispanic 3-year-olds were enrolled in such preprimary programs compared to 40 percent of whites. Among 4-year-olds, 45 percent of Hispanics and 59 percent of whites were enrolled. Among 5-year-olds of normal kindergarten age, these differences largely disappeared: Hispanic enrollment rates, including kindergarten enrollment, were similar to the enrollment rates of white 5-year-olds (*Indicator 1*).

Preprimary educational opportunities are fostered in the home environment as well as in preprimary programs. In 1996, Hispanic children, ages 3-5, were less likely to have been read to in the past week or to have visited a library in the past month than white children (*figure 2 and Indicator 2*). This lack of early reading experience can create learning deficits for Hispanic youngsters.[6]

Figure 2. Percentage of children ages 3–5 who participated in various literacy activities with a parent or family member: 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education File).

Academic performance of Hispanic students

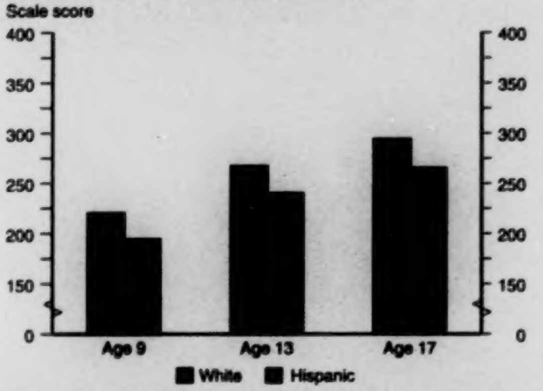
- *Hispanic students score lower than white students in national assessments of reading, writing, mathematics, and science proficiency, but their performance has improved in some areas since 1975.*

Developing reading skills at an early stage is important to future educational success. Once behind in reading proficiency, a student risks having difficulty with other aspects of the curriculum, and a continued lag behind other peers in reading skills as the student gets older. In 1996, at age 9, Hispanic students had an average reading scale score of 194 while white students had an average score of 220 (*Indicator 16*).

There is evidence that the majority of reading skills are mastered by age 13, which is generally when reading is taught in school as a explicit subject for the most part.[7] On average, the reading scores of all 13-year-old students in 1996 were about 50 points higher than their reading scores as 9-year-olds in 1992. In 1996, Hispanic reading scores differed by 46 points between ages 9 and 13, compared to 25 points between ages 13 and 17. The Hispanic-white differences in reading scores were about the same at all three age levels: 26 points at age 9, 27 points at age 13, and 30 points at age 17. At age 17, Hispanic students were reading at levels similar to white 13-year-olds (*Indicator 16*).

These scoring differences between Hispanics and whites mean that the average Hispanic score is below that of the average student by about 25 to 30 points. The extent to which these large differences may be attributable to recent immigration or language difficulties is unknown. Also, students whose English proficiency is judged not to be appropriate for the NAEP tests are excluded from taking them.[8]

Figure 3. Average reading proficiency: 1996

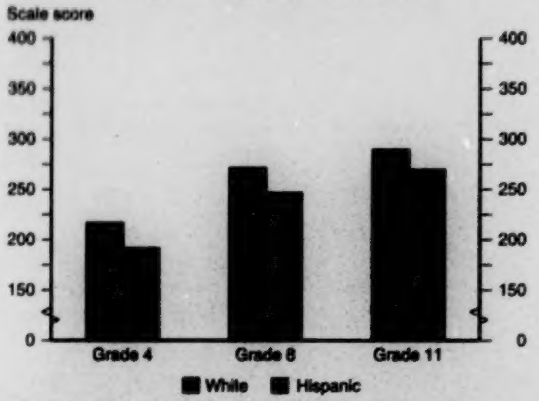


SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1996; Mathematics, 1973 to 1996; Reading, 1971 to 1996; Writing, 1984 to 1996*, 1997.

While Hispanics score at proficiency levels below those of white students at all ages, there was a slight improvement in the average reading proficiency scores of 9-year-old Hispanics between 1975 and 1996. However, there was no similar improvement for 13- and 17-year old Hispanics in reading proficiency (*Indicator 16*).

The NAEP writing proficiency scores of white and Hispanic 4th-, 8th-, and 11th-graders exhibited similar patterns as reading proficiency scores. In 1996, white 4th-grade students outperformed Hispanic 4th-grade students in writing proficiency by 25 scale

Figure 4. Average writing proficiency: 1996

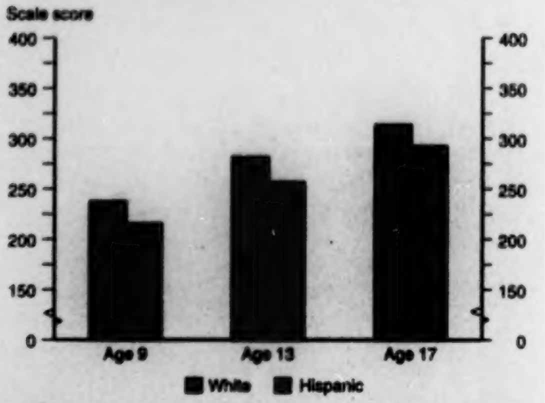


SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1996; Mathematics, 1973 to 1996; Reading, 1971 to 1996; Writing, 1984 to 1996*, 1997.

points. As Hispanic and white students grew older, the writing scale scores of Hispanics remained lower than those of whites. Hispanic 11th-graders performed at a level similar to white students in 8th-graders, similar to the pattern with the reading proficiency scores. There have been no significant increases or decreases in performance on the NAEP writing proficiency scale for Hispanic or white 4th- or 8th-graders between 1984 and 1996 (*Indicator 17*). Again, students whose English proficiency is judged not appropriate for the NAEP tests are excluded from taking them.[9]

Patterns in the NAEP mathematics proficiency scores were similar to the average reading and writing scores in 1996 in most, but not all, respects. White students outperformed Hispanic students at each age level (figure 5). The major difference is that unlike reading and writing, the average mathematics proficiency scores of both white and Hispanic students increased between 1973 and 1996 at all age levels. The scores of Hispanic 13- and 17-year-olds increased at a faster rate than those of white students, causing the performance gaps to narrow over this period.

Figure 5. Average mathematics proficiency: 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1996; Mathematics, 1973 to 1996; Reading, 1971 to 1996; Writing, 1984 to 1996*, 1997.

As in mathematics, the science proficiency scores of both Hispanic and white students increased between 1977 and 1996 at both ages 9 and 13 (*Indicator 19*). Unlike in mathematics, there was no improvement among 17-year-old whites or Hispanics. The gaps in science performance between Hispanics and whites also did not narrow between 1977 and 1996, and Hispanic-white differences at age 9 had not decreased by age 17.

Progress in school

- *Hispanics are taking more rigorous high school courses, and more Hispanic students are participating in the AP program than in the past.*

In the past Hispanic students have been commonly "tracked" into general high school courses that satisfied only the most basic requirements for earning a high school diploma, but did not prepare students to attend 4-year colleges or rigorous technical schools. This general high school curriculum also did not prepare students for good entry-level jobs in high-technology industries if the student chooses not to pursue a postsecondary education.[10]

In 1983, *A Nation at Risk* recommended that all high school students seeking a high school diploma take a more rigorous core curriculum called the "New Basics." This curriculum consists of 4 years of study in English, and 3 years each in mathematics, science, and social studies. In 1982, 7 percent of Hispanic high school graduates earned the units to meet this curriculum. By 1994, this percentage was six times higher, with 44 percent of Hispanic high school graduates earning the units for the "New Basics" curriculum. White graduates are still more likely to have met the course area requirements of the "New Basics" than Hispanics (*Indicator 28*, Condition 1996). However, Hispanics are just as likely as whites to have completed the more rigorous requirements recommended for college-bound students, which included foreign languages and computer science.[11]

Another way to assess the rigor of a student's high school curriculum is to examine participation in the Advanced Placement (AP) program which offers college-level courses to high school students. Satisfactory performance on an AP examination (usually a score of 3 or higher on a 5 point scale) will often allow the examinee to earn college credit. Between 1984 and 1996, the number of Hispanic students who took AP examinations per 1,000 12th-graders increased from 24 to 74. For Hispanics, the rate of 74 students per 1,000 AP examination takers is about half the rate of 133 per 1,000 students for whites. Between 1984 and 1996, whites were more likely to take AP examinations than Hispanics, but the gap between the races has decreased. In 1996, Hispanics taking the AP examination were three times as likely as whites to take a foreign language AP examination (*Indicator 27*).

- *Hispanic students are less likely to complete high school than white students. The rates of not completing are highest among immigrants and those with limited English-language proficiency.*

The differences in high school completion between Hispanics and whites ages 16–24 are substantial. In 1996, the dropout rate for white young adults was 7 percent compared to 29 percent for Hispanic young adults.[12] Immigration and English language use and proficiency are all associated with this difference between the two groups.

Foreign-born Hispanic students are at a much greater risk of not completing high school than native-born students. The status dropout rate (defined as a proportion of young adults ages 16–24 who are not enrolled in school and do not have a high school credential) is about two times higher for Hispanic migrants than for Hispanic young adults born in the 50 states and DC (46 versus 18 percent). Many Hispanic youths migrating to the U.S. do not enroll in school, but seek employment instead. They may be deterred from enrolling by language, economic, and cultural differences.[13] Those who never enroll in high school may account for about one-half of the higher dropout rate for Hispanics. In contrast, Hispanics who had ever enrolled in U.S. schools had a status dropout rate of 20 percent.[14]

Table 1. Percentage distribution of the 16- to 24-year-old population and percentage who were dropouts: 1995

Race/ethnicity and place of birth	Percentage of the population	Dropout rate
Total	100.0	12.0
Born in U.S.	89.4	9.9
Foreign-born	10.6	29.1
White, non-Hispanic	67.9	8.6
Born in U.S.	65.6	8.6
Foreign-born	2.3	7.5
Hispanic	13.9	30.0
Born in U.S.	7.9	17.9
Foreign-born	5.9	46.2

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1995, unpublished data.

The likelihood of not completing high school is also related to language use in the home and English-language proficiency. In 1995, for example, the status dropout rate for Hispanics speaking Spanish at home, who were ever enrolled in U.S. schools, and who spoke English "well," was 19 percent compared to 33 percent for their peers who did not speak English "well."[15]

Due to immigration and the higher dropout rates for Hispanics born in the United States, the overall percentage of the Hispanic, young adult population, ages 25–29 who have completed high school through receiving a diploma or other certificate of high school equivalency is less than that of whites. These rates are 93 percent for whites and 62 percent for Hispanics in 1997. The high school completion rate for Hispanics shows no consistent trend since the early 1980s, while the high school completion rate for whites has increased (*Indicator 22*).

College enrollment

- *Total Hispanic enrollment in postsecondary education is increasing rapidly, primarily because of the growing proportion of Hispanics in the total population, rather than an increase in the rate at which Hispanic high school completers are entering college.*

Enrollment in colleges and universities has become increasingly diverse since the mid-1970s as the total numbers of different minorities enrolling have increased faster than the enrollment of whites. Much of this increased diversity is due to the rapid growth of Hispanic enrollment, which nearly tripled between 1976 and 1995 from .4 to 1.1 million students (fall enrollment).[16] Because of this growth, Hispanic enrollment rose from 4 percent of all students in 1976 in postsecondary education to 8 percent in 1995. As shown in table 2, more Hispanic students have enrolled in community colleges than in 4-year colleges by a substantial amount, and the proportion has increased since 1976.[17]

Table 2. Percentage of all Hispanic and white (non-Hispanic) students in 2-year versus 4-year institutions

Type of institution and race/ethnicity of student	Year							
	1976	1980	1990	1991	1992	1993	1994	1995*
4-year								
White	66.1	63.8	63.1	61.8	62.0	62.6	63.0	63.2
Hispanic	45.2	45.9	45.8	44.2	42.9	43.7	44.3	44.4
2-year								
White	33.9	36.2	36.9	38.2	38.0	37.4	37.0	36.8
Hispanic	54.8	54.1	54.2	55.8	57.1	56.3	55.7	55.6

* Preliminary data.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys; and Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment" surveys.

Nearly all of this growth in total Hispanic enrollments reflects rapid growth in the total numbers of Hispanic high school completers in the U.S. population and not increases in the rates at which Hispanic high school completers are continuing on into postsecondary education. The percentages of Hispanic high school completers ages 18–24 attending college has not changed since the early 1980s, while the rate for whites has grown. In 1996, 34 percent of Hispanic high school completers ages 18–24 were enrolled in college, compared to 45 percent of their white peers. In 1980, the enrollment rates were about the same, with 30 percent of Hispanics and 32 percent of whites enrolled (*Indicator 9*).

A large part of the growing gap between the percentages of Hispanics and white high school completers ages 18–24 who are enrolled in college reflects faster growth in the percentages of white high school completers who immediately enroll in college the following fall (*Indicator 7*). In 1996, 51 percent of Hispanic and 67 percent of white youth went to college immediately after completing high school, compared to 52 percent of Hispanics and 50 percent of whites in 1980 (*Indicator 7*).

- *Hispanic students may be less prepared or qualified to attend a 4-year college than white students. Additionally, college-qualified Hispanics are less likely to take steps toward college admission and enrollment than whites.*

Differences in college preparedness or qualifications may help to explain why Hispanics enroll in college at lower rates than their white peers. In order to have access to a 4-year college, students must complete a series of steps that will increase their chances for admission and enrollment. Students must be academically prepared to attend a 4-year college; this includes successfully following a rigorous high school curriculum and taking college admission tests such as the SAT. Students must also apply to college and enroll if accepted. In 1992, Hispanic high school graduates were less likely to be "college qualified" (as determined by a 4-year college qualification index, see the supplemental note to Indicator 8) than white high school graduates. Moreover, given that they were college-qualified, Hispanic high school graduates were less likely to take steps toward college admission or to enroll at a 4-year institution after high school than white high school graduates (*table 8-1* and *Indicator 8*).

Subject studied in college

Once enrolled in college, Hispanics to some extent pursue different courses of study than their white peers. The choice of a college major affects the types of jobs graduates are prepared to take once they complete their education. Now more than ever, college graduates need skills in science and technology to be competitive in the job market. Examining differences in the racial and ethnic distribution of bachelor's degrees conferred by field of study can be used to predict differences in employment and earnings between Hispanics and whites.

- *Hispanics are more likely than whites to earn bachelor's degrees in business and in computer and information sciences.*

In 1995, Hispanic students were more likely than white students to earn bachelor's degrees in humanities, the behavioral and social sciences, computer and information sciences, engineering, or business management. White students were more likely to major in natural sciences, engineering technologies, education, and health sciences. These patterns of degrees earned are evident in the Hispanic to white concentration ratios in the fields of business management and computer and information sciences (concentration ratios measure the extent to which the major fields of study differ between two population groups). The Hispanic to white concentration ratios increased to greater than 1.0 in these two fields between 1977 and 1995, indicating that Hispanics are increasingly more likely to earn degrees in these two fields than whites. In contrast, the Hispanic to white field concentration ratio decreased considerably in the education field (*Indicator 29*).

Postsecondary attainment

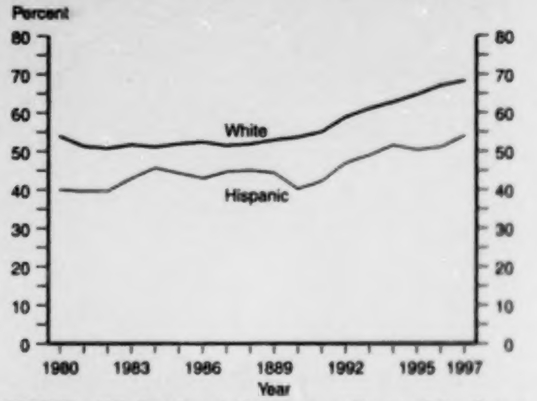
- *The postsecondary educational attainment of Hispanics has increased since the 1970s.*

Completion of postsecondary education has become increasingly important as the demand for education beyond the completion of high school has increased in the labor market.

The percentages of 25- to 29-year-old whites and Hispanic high school completers who have also finished some college or higher[18] have increased between 1980 and 1997, as compared to no increase in the previous decade. In 1997, 68 percent of white high school completers and 54 percent of Hispanic completers had completed some college or higher, while in 1980 the corresponding figures were 54 percent of white and 40 percent of Hispanic completers (*Indicator 22* and figure 7).

The percentages of 25- to 29-year-old white and Hispanic high school completers who have finished 4 or more years of college have not increased as rapidly (see figure 8). The proportion of Hispanic high school completers finishing 4 years of college has increased from 13 percent in 1981 to 18 percent in 1997. For whites, the increase rose from 28 percent in 1980 to 35 percent in 1997. Thus, the rate at which Hispanic high school completers attain 4 or more

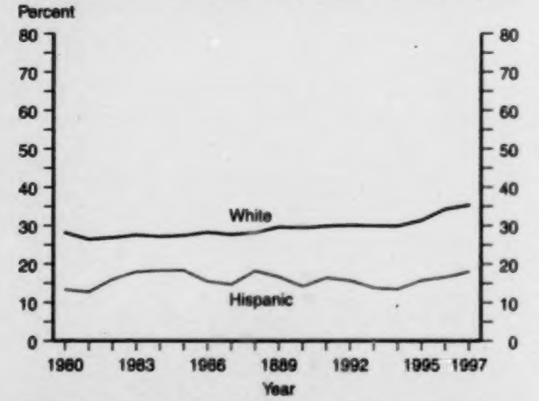
Figure 7. Percentage of 25- to 29-year-old high school completers who completed 1 or more years of college



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

years of postsecondary education relative to white high school completers remains about half the rate of the whites.

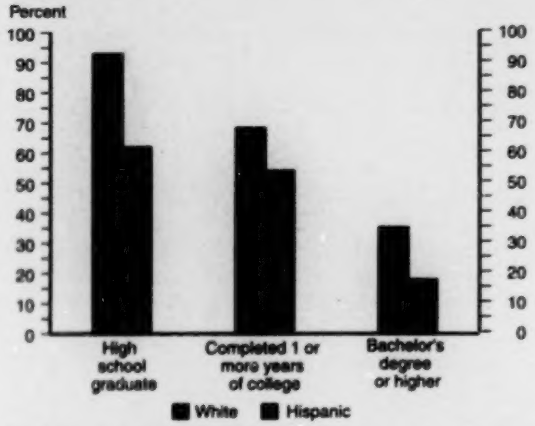
Figure 8. Percentage of 25- to 29-year-old high school completers who completed 4 or more years of college



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

As shown in figure 9, the rate of postsecondary attainment is substantially lower for Hispanics when computed on the basis of the entire Hispanic population, rather than on the number of high school completers. Among those ages 25-29, the rate of completing some college or higher declines from 54 percent of Hispanic high school completers to 33 percent of all Hispanics, while the rate of completing a bachelor's degree or more declines from 18 percent of high school completers to 11 percent of Hispanics.

Figure 9. Percentage of Hispanic and white 25- to 29-year olds who complete different levels of education, March 1997



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

In summary, while there have been some gains in the percentages of Hispanics pursuing and completing higher education, they remain behind whites in attaining this level of education.

Relationship of education and labor market outcomes

Attaining higher levels of education increases one's employment opportunities by enhancing knowledge, ability to learn, work-related skills, and job readiness. Successful employment leads to better overall opportunities for young adults by giving them the opportunity to gain valuable work experience and on-the-job training.[19]

- *With comparable levels of education, Hispanics generally are less likely to be employed and to earn less than whites.*

Among both high school completers not enrolled in college and high school dropouts, Hispanics are less likely to be employed than their white peers. For example, 1995, 71 percent of white high school graduates not enrolled in college and 43 percent of Hispanic high school graduates were employed. Among school dropouts, 52 percent of whites and 44 percent of Hispanics were employed (*Indicator 30*).

However, as these figures indicate, Hispanic high school dropouts were about as likely to be employed as high school graduates.

As shown in table 3, both Hispanic men and women earn less than white men and women at every level of educational attainment.

Table 3. Median annual earnings (in 1997 constant dollars) of full-time, year-round wage and salary workers ages 25–34, by sex, race, and highest educational level: 1994–96

Highest education level	Men		Women	
	White	Hispanic	White	Hispanic
Grades 9–11	$21,513	$16,510	$15,532	$13,699
High school diploma	26,446	21,118	19,323	17,708
Some college	29,272	25,361	23,141	21,412
Bachelor's degree	38,813	34,400	31,085	29,090

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Summary

There has been some progress in education for Hispanics. More Hispanic students are taking rigorous high school course loads and there has been some increase in the rates at which Hispanic high school completers are completing some college or more. The educational levels of the parents of Hispanic students are rising and many parents of Hispanic students are actively involved in their children's education. However, Hispanic students in the United States are still at great risk for academic failure and the subsequent labor market outcomes associated with such failure.

In particular, limited language skills are related to the high dropout rates for Hispanic youth. The extent to which these language skills impinge on Hispanic achievement test performance is largely unknown, but it is certainly a contributing factor to the test performance gaps. An indication of this is that students with low English proficiency are less likely to achieve basic levels of reading and mathematics than students of the same socioeconomic status with medium or high English proficiency.[20]

The rates of high school completion among Hispanics remains much lower than that of whites, reflecting the continued immigration of Hispanics to the United States. So far, the rigorous high school course loads being taken by Hispanic students have not translated into rising rates of college enrollment immediately following high school completion. Rates of completing at least some college within 10 years of leaving high school are rising among Hispanic high school completers and have reached three-quarters of the white rate, but rates of completing 4 or more years of college education remain only half the rate of whites.

When all Hispanics in the population are factored in, including those who have not completed high school, the percentages of Hispanics completing any level of postsecondary education fall considerably further behind the rates of whites, and are showing little improvement. These low rates of postsecondary completion mean continuing difficulties for the Hispanic population in fully participating in areas of the economy where higher levels of education are needed, employment is expanding, and wages are higher.

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[14] U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1995*, Washington, DC, 1997.

[15] U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1995*, Washington, DC, 1997.

[16] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, Washington, DC, 1997.

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[18] "Some college or more" includes an associate degree or vocational degree, and a bachelor's or advanced degree.

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College Access and Affordability

by Susan P. Choy, MPR Associates, Inc.

Postsecondary education generates both individual and public benefits. College graduates with a bachelor's degree earn substantially more than those with only a high school education,[1] and attending college enriches students' lives in other ways that are long lasting and extend to the next generation.[2] Society benefits from an educated population as well. In recent years, there has been evidence that education requirements for all types of occupations are growing, and that the fastest growing occupations are those that require postsecondary training.[3] Furthermore, many believe that increased participation in postsecondary education is crucial to maintaining a competitive position in the global economy.[4]

Federal and state governments encourage participation in postsecondary education and have tried to reduce price barriers so that postsecondary education is accessible. State subsidies to public institutions allow them to charge tuition that is substantially below the actual cost of education, while federal (and sometimes state) grant, loan, and work-study programs help provide financially needy students with the up-front money they need to invest in postsecondary education. Many institutions increase accessibility through their own financial aid and scholarship programs. The extent of public subsidies, the nature of the laws and regulations that determine who is eligible for financial aid, and the amount of funding provided for financial aid programs all greatly affect the affordability of postsecondary education for students from various income groups, and thus, their access to its benefits.

Reflecting the benefits of postsecondary education and the policies and programs that increase accessibility, high school completers are enrolling at record rates, and substantial numbers of older adults are enrolling as well.[5] Although interest in postsecondary education is growing, rising tuition and fees have generated considerable public concern.[6] This raises a series of important questions: To whom is postsecondary education accessible and to what extent is accessibility related to income? How much does attending postsecondary education cost students? How affordable is postsecondary education? How are students and their families coping with the price of attendance? What impact do their financing strategies have on their educational experiences? Some of the statistical evidence available to address these questions from a national perspective is summarized here.

This essay examines the extent to which the financial aid system promotes access to postsecondary education by equalizing income differences. It does not address the effects of other factors such as low employment rates or a robust economy on enrollment, nor does it examine the sensitivity of different income groups to price, the types of aid available, or differences in access by race/ethnicity. For information about trends of enrollment in higher education, see the other two essays in this series: "The Educational Progress of Black Students" and "The Educational Progress of Hispanic Students."

Access to postsecondary education

Increasingly, high school students are being advised to go to college, and growing numbers are taking that advice. However, not all high school completers have the same access. Some of the characteristics associated with higher rates of enrollment are related to income, suggesting that the price of attending is a barrier. However, certain attitudes and behaviors appear to be factors as well.

- *Increasingly, high school students are being advised to go to college.*

The proportions of high school sophomores whose teachers, counselors, and parents encouraged them to go to college increased dramatically between 1980 and 1990. High school sophomores in 1990 were twice as likely as their counterparts in 1980 to report that their teachers and guidance counselors recommended that they go to college (table 1). In 1990, more than half of even the lowest performing sophomores (those scoring in the lowest quartile on mathematics and reading tests) were advised to attend.

Table 1. Percentage of high school sophomores who reported being advised to attend college by various adults: 1980 and 1990

	All students		Lowest test quartile*	
Recommended by	1980	1990	1980	1990
Father	59	77	40	60
Mother	65	83	48	65
Guidance counselor	32	65	26	56
Teacher	32	66	28	57

* Composite mathematics, reading, and vocabulary performance.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *America's High School Sophomores: A Ten Year Comparison, 1980–1990*, p. 47.

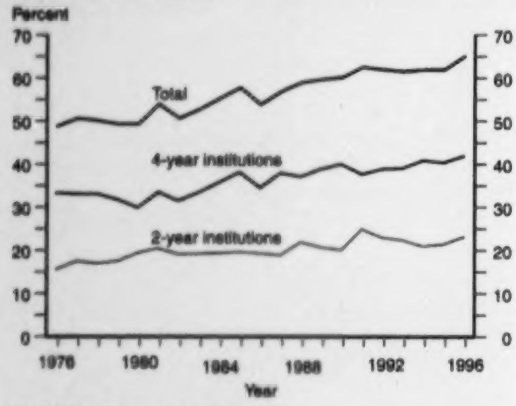
- *Interest in postsecondary education among high school completers is almost universal.*

Nearly all 1992 high school completers (97 percent) reported that they planned to continue their education at some time, and 71 percent expected to earn a bachelor's degree. Even among completers whose families had low incomes (less than $25,000) or whose parents had no more than a high school education, the vast majority (94 percent in each case) planned to continue their education at some time. Sixty-five percent of the 1992 high school completers enrolled in some type of postsecondary education immediately after high school. By 1994, 75 percent of this same group had enrolled.[7]

- *Enrollment in college immediately after high school has risen over the past 20 years.*

The proportion of high school completers who enrolled in an institution of higher education (a 2- or 4-year college or university) immediately following high school increased from 49 to 65 percent between 1976 and 1996, with growth throughout the 20-year period (figure 1). Of the overall gain of 16 percentage points, about half of the increase (7 percentage points) was in 2-year institutions and about half (9 percentage points) was in 4-year institutions *(Indicator 7).*

Figure 1. Percentage of high school completers who were enrolled in college the October after completing high school: 1976–96



SOURCE: Indicator 7, *Condition 1998.*

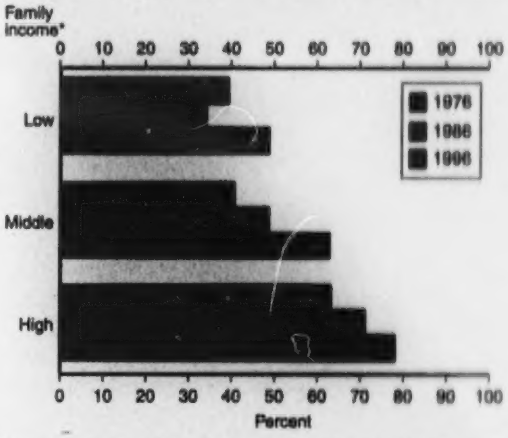
Another indicator of the interest in higher education is the percentage of young adult high school completers enrolled at any given time. This percentage reflects not only the number of high school completers who enroll immediately after high school, but also the number who delay entry but enter within the next few years, and the amount of time both groups are enrolled. Between the late 1960s and the mid-1980s, about one-third (29 to 35 percent) of high school completers ages 18–24 were enrolled in higher education in any given year. After that, the proportion enrolled increased gradually to 43 percent in 1996.[8]

While the enrollment rate in higher education has increased for high school completers in the aggregate, not all segments of this population participate at the same rate. Because issues of affordability are the focus in this essay, income differences are given the most attention. However, differential participation rates extend to other characteristics, and some of these are discussed as well.

- *Enrollment rates increase with family income.*

In 1996, high school completers from low income families were less likely to go to a 2-or 4-year college or university immediately after high school (49 percent) than were their peers from middle income families (63 percent), who, in turn, were less likely to enroll than completers from high income families (78 percent) (figure 2).

Figure 2. Percentage of high school completers who were enrolled in college the October after completing high school, by family income: 1976, 1986, and 1996

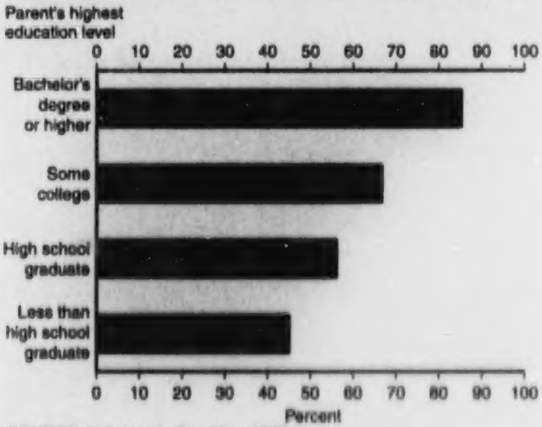


* Low income is the bottom 20 percent of all families; high income is the top 20 percent; and middle income is the 60 percent in between.
SOURCE: Indicator 7, *Condition 1998.*

- *Enrollment rates also increase with parents' education level.*

Students are much more likely to enroll in higher education immediately after high school if their parents have at least a bachelor's degree than if they have less education *(Indicator 7).* Enrollment rates of 1996 high school completers immediately after high school ranged from 45 percent for those whose parents had less than a high school education to 85 percent for those whose parents had a bachelor's degree or higher (figure 3). These data provide evidence of the intergenerational effects of postsecondary education.

Figure 3. Percentage of high school completers who were enrolled in college the October after completing high school, by parent's highest education level: 1996



SOURCE: Indicator 7, *Condition 1998.*

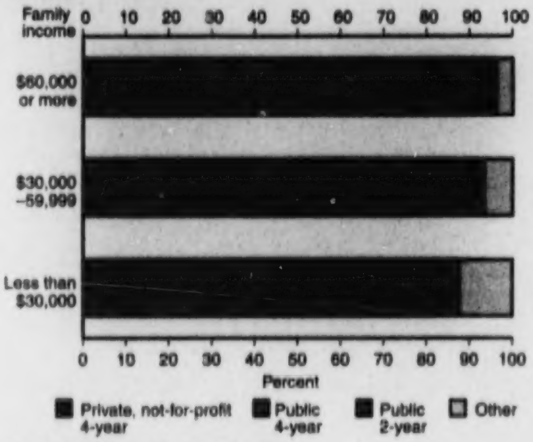
- *Where students enroll is related to family income.*

Among financially dependent undergraduates (that is, most students under 24 years old) who enrolled in postsecondary education for the first time in 1995–96, students from families at all income levels were more likely to enroll in public 4-year institutions than they were to enroll in private, not-for-profit 4-year institutions (25 versus 15 percent) (*Indicator 10*). Students from families with incomes of $60,000 or more were the most likely to enroll in private, not-for-profit 4-year institutions (25 percent did so, compared to 16 percent of students from families with incomes between $30,000 and $59,999) and 14 percent of students from families with incomes less than $30,000 (figure 4). Students from families with incomes of $60,000 or more were less likely than other students to enroll in public 2-year institutions (34 percent versus 47 percent of students from families with incomes between $30,000 and $59,999 and 43 percent of students from families with incomes less than $30,000).

- *The likelihood of being prepared to enter a 4-year institution and taking the necessary steps toward enrollment increases with income.*

One reason that low income high school graduates go to 4-year institutions at lower rates than graduates from higher income families is that they are less prepared academically. The likelihood of being prepared increased with income: 53 percent of 1992 low income graduates (less than $25,000) had sufficient academic qualifications for admission to a 4-year college, 68 percent of middle income graduates ($25,000–74,999), and 86 percent of high school graduates from high income families ($75,000 or more) (table 2). In addition, among college-qualified 1992 high school graduates, there was a positive relationship between income and each of the following attitudes and behaviors that normally precede enrolling in a 4-year institution: expecting to complete a bachelor's degree; planning to enroll at a 4-year institution; taking steps toward admission (taking an entrance examination and applying); and gaining admission.

Figure 4. Percentage distribution of dependent, first-time beginning postsecondary students, by family income: 1995–96



SOURCE: Indicator 10, *Condition 1998.*

Table 2. Percentage of 1992 high school graduates who were college qualified* and who pursued plans to attend college, by family income

		Family income		
Qualification, attitudes, and behaviors	Total	Low (Less than $25,000)	Middle ($25,000–74,999)	High ($75,000 or more)
College-qualified*	65	53	68	86
Among college qualified graduates:				
Expected bachelor's degree	83	74	84	96
Planned to attend 4-year college	76	69	76	91
Took steps toward admission to a 4-year college	73	62	73	91
Accepted at 4-year college	69	59	69	89
Enrolled in 4-year college by 1994	62	52	62	83

* Four-year college qualification index based on high school GPA, senior class rank, NELS 1992 aptitude test, SAT and ACT scores, and curricular rigor.

SOURCE: Indicator 8, *Condition 1998.*

- *Among high school graduates who have the academic qualifications and take the steps necessary for admission, low income graduates are just as likely as middle income graduates to enroll in a 4-year institution.*

Even when low income high school graduates not only had the academic qualifications for admission to a 4-year college but also took the necessary steps toward admission, they were less likely than high income graduates to enroll in a 4-year institution (83 versus 92 percent) (table 3). However, they were just as likely as middle income students to be accepted at a 4-year institution (94 versus 93 percent) and to enroll (83 versus 82 percent).

Table 3. Percentage of college-qualified 1992 high school graduates taking steps toward admission at a 4-year institution who were accepted, and percentage who were enrolled by 1994, by family income

		Family income		
Acceptance and enrollment by 1994	Total	Low (Less than $25,000)	Middle ($25,000–74,999)	High ($75,000 or more)
Accepted at a 4-year institution	93	94	93	98
Enrolled by 1994				
4-year institution	84	83	82	92
Any postsecondary institution	96	95	96	98

SOURCE: Table 8-2, *Condition 1998.*

- *The enrollment rates of low SES, high achieving high school students are lower than the enrollment rates for middle and high SES, high achieving groups.*

Among 1992 high school seniors in the highest achievement test quartile, students whose families were also in the highest socioeconomic status (SES) quartile were considerably more likely than those in the lowest SES quartile to attend a 4-year college within two years of their scheduled graduation (86 versus 58 percent) (table 4). In this sense, the access of low SES students to 4-year colleges is less than the access of high SES students. Among high school seniors in this same highest achievement quartile but in the lowest SES quartile, the likelihood of attending a 4-year college within two years of graduation has increased from 48 percent in 1972 to 58 percent in 1992. Thus, the access of low SES, high achieving students has increased since 1972 (*Indicator 12,* Condition 1997).

Table 4. Percentage of high school seniors who enrolled in a 4-year college within 2 years of scheduled graduation, by socioeconomic status: 1972, 1980, and 1992

	Highest achievement quartile		
Socioeconomic status	1972	1980	1992
Total	**70**	**74**	**77**
Low quartile	48	54	58
Middle quartiles	61	69	69
High quartile	85	85	86

SOURCE: Indicator 9, *Condition 1997.*

The price of attending a postsecondary institution

The price of attending a postsecondary institution is of great concern to most students and their families. The amounts they have to pay affect students' initial access to postsecondary education and also their ability to remain enrolled long enough to complete a degree or certificate. The public is extremely anxious about rising prices, and many parents worry that college will be beyond their children's reach.[9] In reality, however, students have a range of options with widely varying price tags.

- *The price of attending a higher education institution varies greatly depending on the type of institution.*

Financially dependent undergraduates who attended a postsecondary institution full time for the full year in 1995–96 paid average tuition and fees that ranged from $1,300 if they attended a public 2-year institution, to $3,900 at a public 4-year institution, to $13,300 at a private, not-for-profit 4-year institution (table 5). Although the price to students and their families (including living expenses as well as tuition and fees) averaged $20,000 for those who attended a private, not-for-profit 4-year institution, the average total price was about half that ($10,800) for those attending a public 4-year institution, and even less ($6,800) for those attending a public 2-year institution.

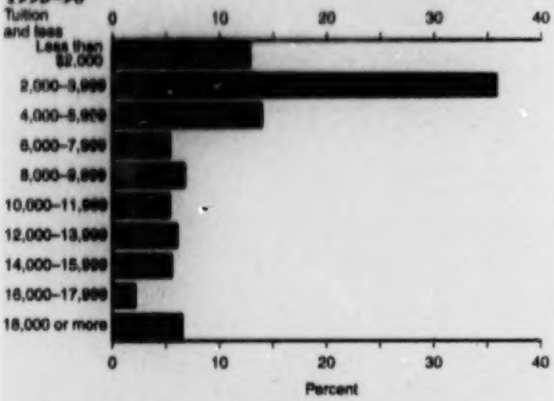
Table 5. Average price of attending a postsecondary institution for dependent full-time, full-year undergraduates, by type of institution: 1995–96

Type of institution	Tuition and fees	Total price
All students	**$6,100**	**$12,600**
Public 4-year	3,900	10,800
Private, not-for-profit 4-year	13,300	20,000
Public 2-year	1,300	6,800

SOURCE: Indicator 14, *Condition 1998.*

The amount of tuition and fees included in these prices varies widely, even among 4-year institutions. Although a small proportion (7 percent) of undergraduates (dependent and independent) who attended 4-year institutions full time, full year paid more than $18,000 in tuition and fees in 1995–96, about half (49 percent) paid less than $4,000 (figure 5).

Figure 5. Percentage distribution of full-time, full-year undergraduates at 4-year colleges, by tuition and fees: 1995–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:96).

- *The price of college attendance has escalated, even allowing for inflation.*

The price of attending a 2- or 4-year college or university, adjusted for inflation, has risen substantially for both public and private institutions. Between 1986–87 and 1996–97, the average student charges (in 1997 constant dollars) for tuition, room, and board at higher education institutions increased by 20 percent at public institutions and 31 percent at private institutions (table 6).

Table 6. Average* prices for undergraduate higher education (in 1997 constant dollars), by type of institution: 1986 and 1996

Type of institution	1986-87	1996-97	Percent change
Average tuition, room, and board*			
Public	$5,500	$6,600	20
Private	14,000	18,300	31
Average tuition and fees*			
Public	$1,600	$2,300	44
Private	9,100	12,700	40

* Weighted by student enrollment.

SOURCE: Indicator 12 and table 12-2, *Condition 1997*.

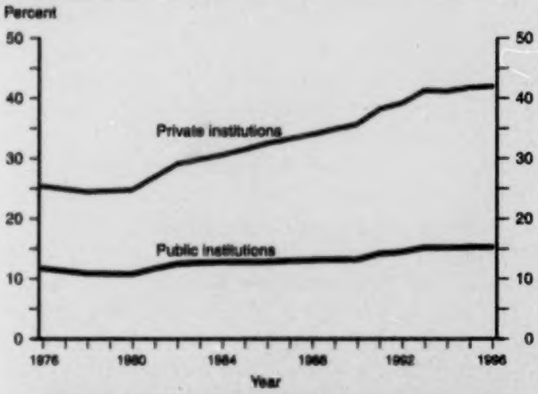
Affordability

Regardless of the price of postsecondary education, the important issue for students and their families is whether they can afford to pay. The record high enrollments in higher education (14.4 million in fall 1995[10]) show that today college is affordable to millions of students. Since increasing access to postsecondary education is an important goal at the national, state, and institutional levels, it is necessary to consider its affordability to students at all income levels. This issue can be examined from a number of perspectives, including growth in prices relative to family income, the resources families need to manage college prices on their own, and the extent to which financial aid reduces the price of attending.

- *The price of college attendance has increased faster than family incomes.*

More important than the increase in inflation-adjusted prices is the fact that average charges for tuition, room, and board at 2- and 4-year colleges and universities have increased faster than family incomes, especially at private institutions (figure 6).

Figure 6. Average undergraduate tuition, room, and board as a percentage of median family income: 1976–96



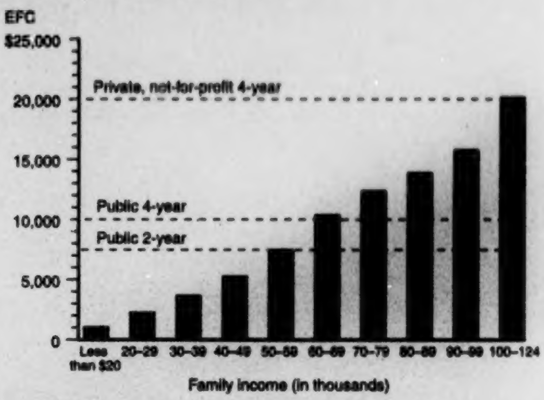
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on IPEDS "Fall Enrollment" and "Institutional Characteristics" surveys). U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-60, "Income, Poverty, and Valuation of the Non-Cash Benefits," various years (based on the March Current Population Surveys).

Average prices at public institutions increased from 13 percent of the median family income in 1986 to 15 percent in 1996, and at private institutions, from 32 to 42 percent during the same period (*Indicator 12*, Condition 1997). The increase was larger for low income families than for high income families. Between 1986 and 1996, charges at public institutions increased from 27 to 33 percent of family income for those at the 20th income percentile, compared to an increase from 7 to 9 percent for families at the 80th percentile. At private instiutions, the corresponding increases in charges were from 69 to 90 percent of family income at the 20th percentile and from 19 to 24 percent at the 80th percentile.[11]

- *Student financial aid increases affordability for eligible students.*

Postsecondary education would be beyond the reach of many families without financial assistance. Financial aid eligibility rules specify an expected family contribution (EFC) that is based on their financial circumstances (mainly income and assets). This amount is a rough measure of what families can afford on their own. Therefore, comparing the amounts families at different income levels are expected to pay toward the price of attending provides an indicator of the affordability of various types of institutions. For example, families with incomes of $50,000–59,999 had an average EFC of $7,400, enough to cover the average price of attending a public 2-year institution without financial aid. Families with incomes of $70,000–79,999 had an average EFC of $12,300, enough to cover the price of attending a public 4-year institution without aid. Families with incomes of $100,000–124,000 had an average EFC of $20,100, about equal to the average cost of attending a private, not-for-profit 4-year institution (figure 7).

Figure 7. Average expected family contribution (EFC) for dependent students: 1995–96



NOTE: The horizontal lines on the figure represent the average student budgets for full-time, full-year students at the indicated type of institution.
SOURCE: Indicator 14, *Condition 1998.*

Half of all undergraduates received some type of financial aid from federal, state, institutional, or other sources in 1995–96 (table 7). Thirty-nine percent received grants, and 26 percent took out loans. Among financially dependent students, about two-thirds (66 percent) of those from families with incomes less than $20,000 received grants, as did 51 percent of those with incomes between $20,000 and $39,999. As family income rises above $40,000, students are less likely to be eligible for need-based grants and scholarships. When grants are not sufficient, students qualifying for federal financial aid may take out low interest, subsidized loans through the Stafford loan program. Students ineligible for subsidized loans because their incomes are too high can take out unsubsidized Stafford loans if they are otherwise eligible. Some states and institutions have their own loan programs, but most undergraduate borrowing is through the Stafford loan program.[12]

Table 7. Percentage of undergraduates with student financial aid from any source in 1995–96, by family income and type of aid

Family income	Any aid*	Grants	Loans
Total	**50**	**39**	**26**
Family income in 1994 (dependent students only)			
Less than $20,000	70	66	35
$20,000–39,999	60	51	38
$40,000–59,999	47	30	32
$60,000–79,999	43	25	27
$80,000–99,999	38	20	23
$100,000 or more	28	17	13

*Also includes other types of aid, such as work study, as well. Includes aid from federal, state, institutional, and other sources.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

For undergraduates from families in the lowest income quartile, student aid covered, on average, more than half the price of attending a 4-year institution in 1995–96. It covered 54 percent at public institutions and 60 percent at private, not-for-profit institutions (table 8). Because of the criteria for awarding student aid, the percentage of total price covered by aid declined as family income increased at public 4-year institutions. The same was generally true at private, not-for-profit 4-year institutions, except that lower and lower middle income students had similar amounts covered (60 and 58 percent). At public 2-year institutions, aid covered an average of 38 percent of the total price for low income students, and smaller proportions for students with higher incomes.

Table 8. Total aid as a percentage of total price for dependent full-time, full-year undergraduates, by family income quartile and type of institution attended: 1995–96

Family income quartile	Public 4-year	Private, not-for-profit 4-year	Public 2-year
Total	**33**	**45**	**17**
Low	54	60	38
Lower middle	41	58	14
Upper middle	26	46	9
High	17	25	4

NOTE: Total price includes tuition and fees and an institutionally determined allowance for student living expenses.

SOURCE: Indicator 12, *Condition 1998*.

- *Despite financial aid, many students have unmet need.*

The net amount that students actually pay to attend college is the total price charged by the institution minus any financial aid they are awarded. This price includes tuition, fees, and a budgeted amount of living costs. In 1995–96, the average net price of attending college (price minus aid received) for a dependent, full-year undergraduate (including aided and unaided students in the average) was $7,300 at a public 4-year institution, $11,200 at a private, not-for-profit 4-year institution, and $5,700 at a public 2-year institution (table 9). Because financial aid reduces the net price for low income students, it increases the affordability of prosecondary education for them.

Table 9. Average net price and unmet need for dependent full-time, full-year undergraduates, by type of institution attended and family income quartile: 1995–96

Type of institution and family income quartile	Net price	Unmet need
Total	**$8,100**	**$2,700**
Public 4-year	7,300	2,000
Low	4,700	3,800
Lower middle	6,200	3,000
Upper middle	7,800	1,500
High	9,700	400
Private, not-for-profit 4-year	11,200	4,500
Low	7,200	6,200
Lower middle	7,800	4,900
Upper middle	10,900	4,500
High	16,400	3,000
Public 2-year	5,700	1,800
Low	4,200	3,200
Lower middle	6,000	2,700
Upper middle	6,400	600
High	6,600	100

NOTE: Averages include zero values.

SOURCE: Indicator 14, *Condition 1998*.

- *For students from low income families, the total unmet need remains a substantial proportion of family income.*

The average unmet need (net price minus the EFC) for low income full-time, full-year dependent undergraduates attending public 4-year institutions was about $3,800, and a similar amount ($3,200) at public 2-year institutions. Average unmet need for their counterparts at private, not-for-profit 4-year institutions was much higher ($6,200). These are the amounts above and beyond the EFC that must be covered by students and their families by borrowing more, working, reducing their living costs, or some other means.

In addition to the fact that lower income students have higher unmet need than higher income students, lower income students have also been found to be more sensitive to a given level of unmet need than high income students. That is, for a certain level of unmet need, low income students are more likely to be deterred from attending higher education than higher income students are.[13] Generally it has been found that for each $150 increase in the net price of college attendance, the enrollments of students in the lowest income group decrease by about 1.8 percent.[14]

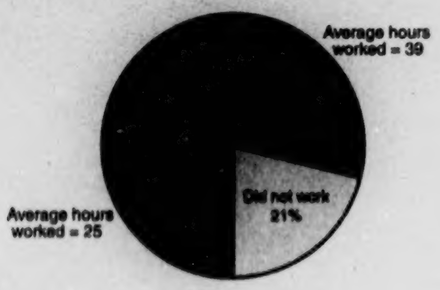
Coping with the price of attending college

Students pay for their postsecondary education with a combination of savings, help from families and friends, financial aid, and work. Their use of work and borrowing are of particular interest because working may affect their academic opportunities and performance while enrolled, and borrowing may result in a substantial debt burden after they graduate.

- *Students rely heavily on work to help pay for their education.*

A large majority of undergraduates (including both dependent and independent students) worked while enrolled (79 percent) during the 1995–96 academic year (figure 8). Among students who considered themselves primarily students working to pay their education expenses (50 percent of all students), the average number of hours worked per week was 25. Among students who considered themselves primarily employees taking classes (29 percent of all students), the average was 39 hours.

Figure 8. Percentage of undergraduate students who worked while enrolled: 1995–96



SOURCE: Indicator 52, *Condition 1998.*

- *Working can have negative consequences on students' academic opportunities and performance.*

Among undergraduates who considered themselves primarily students working to pay school expenses, the more they worked the more likely they were to report that their working limited their class schedule, reduced their choice of classes, and limited the number of classes they could take (table 10). Among those who worked full time while enrolled (35 or more hours per week), at least half reported each of these effects. In addition, 55 percent of dependent undergraduates who considered themselves primarily students and who worked full time reported that working negatively affected their grades.

Table 10. Percentage of undergraduates who worked to help pay for school expenses and various effects of work on their studies, by average hours worked: 1995–96

Average hours worked per week while enrolled	Limited class schedule	Reduced class choices	Limited number of classes	Negatively affected their grades*
Total	**40**	**36**	**30**	**37**
1–15	22	16	15	17
16–20	31	28	24	34
21–34	42	38	32	46
35 or more	61	60	51	55

* Asked only of dependent students.

SOURCE: Indicator 52, *Condition 1998.*

- *Borrowing through federal loan programs increased considerably after income restrictions were removed.*

Since unsubsidized Stafford loans were introduced in 1993–94, many students whose family income was too high to qualify for a subsidized loan have taken advantage of this opportunity to borrow to finance their education. In 1992–93, the last year before the eligibility rules changed, 37 percent of all seniors enrolled at public 4-year institutions had ever borrowed through a federal loan program; in 1995–96, 50 percent had done so (table 11). At private, not-for-profit 4-year institutions, the percentage ever borrowing increased from 44 to 55 percent.

Table 11. Percentage of students who borrowed during the academic year and who ever borrowed, by type of institution: 1992–93 and 1995–96

Type of institution	1992–93 Borrowed in 1992–93	1992–93 Ever borrowed	1995–96 Borrowed in 1995–96	1995–96 Ever borrowed
Public 4-year				
All students	25	36	35	47
Seniors	26	41	37	52
Private, not-for-profit 4-year				
All students	35	45	44	54
Seniors	35	49	43	56
Public 2-year	6	18	6	21

SOURCE: Indicator 15, *Condition 1998.*

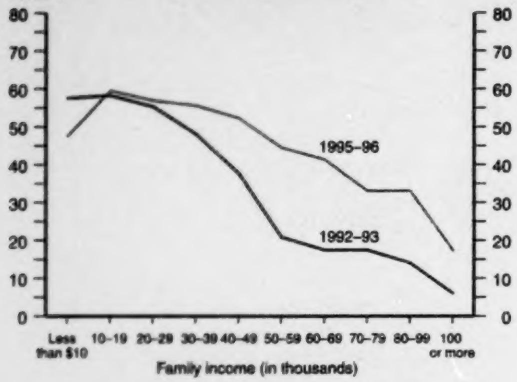
- *Borrowing increased particularly among middle and upper income families.*

Among dependent undergraduates at both public and private, not-for-profit 4-year institutions, the increase in borrowing was concentrated among students from families with incomes greater than about $30,000 (figure 9). Although some have linked the increased borrowing to rising tuitions,[15] there is no way to verify whether the increased borrowing represents more investment in postsecondary education or if middle and upper income families have simply shifted from using savings or work to borrowing. Overall, 52 percent of the seniors at public 4-year colleges in 1995–96 had borrowed from federal loan programs, and they carried an average of $11,000 in debt. For seniors at not-for-profit private 4-year colleges, about 56 percent had borrowed and their average debt was $13,200 (*Indicator 15*).

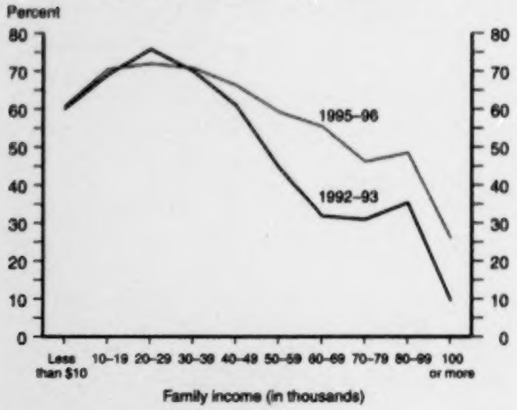
Students from higher income families do not appear to have used the increased borrowing opportunities to shift from public institutions to pri-

Figure 9. Percentage of dependent, undergraduate students who ever borrowed from federal loan programs: 1992–93 and 1995–96

Public 4-year institutions



Private, not-for-profit 4-year institutions



SOURCE: Indicator 15, *Condition 1998.*

vate, not-for-profit 4-year institutions. The percentage of dependent beginning postsecondary students from families with incomes of $60,000 or more attending private, not-for-profit institutions was about the same in 1989–90 (24 percent) and 1995–96 (25 percent) (table 10-1, *Condition 1998*).

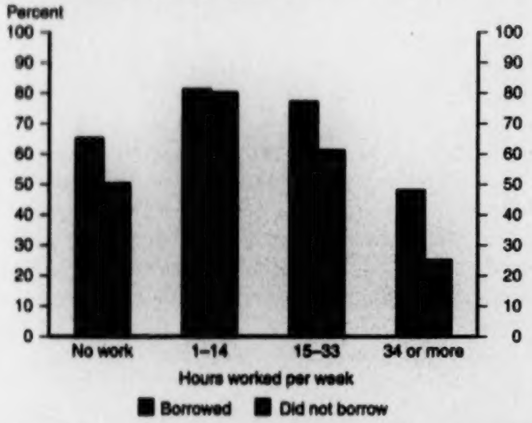
- *Working a modest amount was positively associated with persistence, as was borrowing.*

An analysis of persistence and attainment by 1989–90 beginning postsecondary students that controlled for a variety of factors showed that working 1–14 hours per week while enrolled was positively associated with persistence and attainment five years later, but that working full time was negatively associated with it. Borrowing was positively associated with persistence and attainment as well.[16] Students who borrowed were more likely than those who did not borrow to persist or attain within 5 years at each level of work considered except 1–14 hours (figure 10).

Findings from an analysis of 1995–96 undergraduates were similar, although outcome data are available only for one year so far. Among those seeking a bachelor's or associate degree who considered themselves primarily students working to pay their expenses, those who worked 15 or fewer hours were more likely than students who worked more to attend for the full year, suggesting that working more than 15 hours may negatively affect persistence.

The students who considered themselves primarily students and worked 15 hours or fewer were also more likely to borrow and to borrow larger amounts, suggesting that students may substitute working for borrowing.[17]

Figure 10. Percentage of 1989–90 first-time beginning postsecondary students who attained a degree or were still enrolled as of spring 1994



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Summary

Enrollment in postsecondary education continues to rise, with increasing proportions of high school graduates going directly to college, and almost all expecting to enroll at some time in their lives. Low income high school graduates are less likely to attend postsecondary education than their higher income peers. One reason is that they tend to be less well prepared, but even among the highest achieving high school students, low income students are less likely to enroll, suggesting that finances may be a barrier for some. However, aspirations and expectations are important factors.

When college-qualified low income students take the necessary steps toward admission to a 4-year institution, they are just as likely as middle income students to be accepted and to enroll.

College prices are rising faster than median family income. However, about half of all full-time, full-year undergraduates at 4-year institutions face tuition and fees of less than $4,000 per year, largely because of the subsidies that are provided to public institutions. Although financial aid reduces net prices for low income students, substantial unmet need remains.

Students and their families cope with the price of attending college using savings, income, borrowing, and work. While some work experience while enrolled may complement students' academic experiences and improve their employment prospects after graduation, full-time work appears to have some negative consequences. In addition, there is some evidence that borrowing to reduce the number of hours a student needs to work to no more than 15 hours per week may increase a student's chance of completing a degree.

References

[1] In 1995, young adult workers ages 25–34 who had completed a bachelor's degree or higher earned substantially more than those who had only completed high school (males earned 54 percent more, and females earned 88 percent more) *(Indicator 32)*.

[2] E.T. Pascarella and P.T. Terenzini, *How College Affects Students*, San Francisco: Jossey-Bass, 1991.

[3] For a review of the evidence, see M. Mumper, *Removing College Price Barriers*, Albany, NY: State University of New York Press, 1996.

[4] See, for example, R. Reich, *The Work of Nations*, New York: Knopf, 1991.

[5] In fall 1995, 37 percent of all undergraduates in institutions of higher education were 25 years or older. U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1997*, Washington, DC.

[6] A national commission was established to study this problem and recently released its final report: National Commission on the Cost of Higher Education, *Straight Talk on the Cost of Higher Education*, Washington, DC, 1998.

[7] U.S. Department of Education, National Center for Education Statistics, *Access to Postsecondary Education for the 1992 High School Graduates*, by L. Berkner, Washington, DC, 1997.

[8] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1997*, Washington, DC.

[9] National Commission on the Cost of Higher Education, *Straight Talk on the Cost of Higher Education*.

[10] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1997*, Washington, DC.

[11] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1997* (based on "Fall Enrollment" and "Institutional Characteristics" surveys. U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Income, Poverty, and Valuation of Non-cash Benefits," various years (based on the March Current Population Surveys).

[12] U.S. Department of Education, National Center for Education Statistics, *Student Financing of Undergraduate Education: 1995–96*, Washington, DC, 1998.

[13] Kane, Thomas J., "College Entry by Blacks Since 1970: The Role of College Costs, Family Background, and the Returns to Education," *Journal of Political Economy*, vol. 105, no. 5, October 1994.

[14] McPherson, Michael S. and Morton Owen Shapiro, *The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education*, Princeton, NJ: Princeton University Press, 1998.

[15] See, for example, General Accounting Office, *Higher Education: Students Have Increased Borrowing and Working to Help Pay Higher Tuitions*, Washington, DC, 1998.

[16] U.S. Department of Education, National Center for Education Statistics, *Postsecondary Financing Strategies: How Undergraduates Combine Work, Borrowing, and Attendance*, by S. Cuccaro-Alamin and S. Choy, Washington, DC, 1998.

[17] U.S. Department of Education, National Center for Education Statistics, *Profile of Undergraduates in U.S. Postsecondary Institutions: 1995–96*, by L. Horn, Washington, DC, 1998.

Access, Participation, and Progress

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Access, Participation, and Progress

A wide variety of educational opportunities are available to both children and adults in the United States. Preprimary education prepares young children socially and academically for the first grade; elementary and secondary education provide a foundation of basic skills that prepares young people to become productive members of society; and postsecondary education provides a wide range of options for individuals to gain advanced knowledge and skills either immediately after high school or later in life. Additionally, students' access to and participation in differing types of activities and technologies, such as computer usage, contribute to the educational and employment opportunities that will become available to them in the future.

The benefits that one obtains from formal education are closely related to the individual's degree of participation. Thus, it is important to monitor the extent to which both individuals and groups have access to differing educational opportunities and how they progress through various education levels. While research has shown an increase in access to and participation in many types of educational activities, discrepancies appear when student access and participation rates are compared according to family income, parents' education, and racial/ethnic background.

Access and Participation

Because of mandatory attendance laws, enrollment rates for children ages 6–15 have been close to 100 percent for many years (Indicator 1, *Condition 1996*). However, the increasing importance placed on education in recent years has helped strengthen the participation rates within age groups for which attendance is not compulsory.

In 1996, 37 percent of 3-year-olds, 58 percent of 4-year-olds, and 90 percent of 5-year-olds were enrolled in preprimary education. For each age group, the enrollment rate in 1996 was higher than that in 1991. Even though participation rates increased in preprimary programs, not all children have access to these programs. For example, in 1996, similar percentages of white and black 3- and 4-year-olds were enrolled in center-based programs, while Hispanic children of the same age had lower enrollment rates. Additionally, 3- and 4-year-olds from families with incomes greater than $50,000 were more likely to be enrolled in preprimary education than children from families with lower incomes. Enrollment rates for 3- and 4-year-olds have been associated with parents' education level over time: between 1991 and 1996, as parents' educational attainment increased, so did the preprimary enrollment rates of their children (*Indicator 1*).

Parents can help prepare their children for school by reading to them, telling them stories, and taking them to the library. Between 1991 and 1996, the percentage of children ages 3–5 who were read to or told a story increased. Participation rates in these literacy activities, as well as participating in preprimary education, were related to factors such as racial/ethnic background and parents' education level. In 1996, white children ages 3–5 were more likely to have been read to three or more times in the past week than their black or Hispanic peers. White children were also more likely to have visited a library in the past month than black or Hispanic children. Moreover, 3-, 4-, and 5-year-olds whose parents had completed a bachelor's degree were more likely to have been read to three or more times in the past week or to have visited a library in the past month than children whose parents' highest education level was a high school diploma or GED (*Indicator 2*).

In a society that demands its work force have an increasingly sophisticated knowledge of computers and technology, access to and use of computers during elementary and secondary education can provide students with an important knowledge base that can increase their opportunities for employment and success in the job market. In 1996, 72 percent of 4th-graders, 47 percent of 8th-graders, and 50 percent of 11th-graders reported using a computer at school at least once a week. The percentage of students who reported using a computer at school at least once a week has increased for 4th-, 8th-, and 11th-graders since 1984. Students from higher income families were more likely to report using a computer at home than students from low income families. The increase in home computer use between 1984 and 1993 was greater for students from higher income families than for students from low income families (*Indicator 3*).

For postsecondary education, enrollment rates have increased, although participation varies by students' family income and racial/ethnic background. For example, in 1986, 54 percent of high school completers went directly to college, compared to

65 percent in 1996 (table 7-1, *Indicator 7*). Between 1986 and 1995, high school completers from high income families were more likely than completers from low income families to go directly to college after completing high school. Additionally, college enrollment rates for whites ages 18–24 grew by 12 percentage points between 1972 and 1996, rising from 33 to 45 percent. Enrollment rates for their black counterparts rose from 27 to 36 percent during the same time period (*Indicator 9*).

The price of postsecondary education to students and their families affects students' access to college. The net price of attending college is the total price minus total aid—that is, tuition, fees, and living expenses less aid received through grants, loans, and work study programs. The net price of education less the expected family contribution (EFC) is the remaining expense (i.e., the unmet need) that an individual student must meet to finance his or her education. During the 1995–96 academic year, the average unmet need for a dependent full-time, full-year undergraduate student was $2,712. Students from low income families, on average, had a larger average unmet need than their peers from higher income families attending the same type of institution. For example, during the 1995–96 academic year, the average unmet need was about $6,200 for students from low income families attending a private, not-for-profit 4-year institution, while the average unmet need for students from high income families attending the same type of institution was about $3,000 (*Indicator 14*).

One way students can increase their chances of attending a postsecondary institution is to take out loans to finance their education. The percentage of undergraduate students attending a public or private 4-year institution who borrowed from federal loan programs increased between the 1992–93 and 1995–96 school years. Also, the average amount of money that students borrowed increased from $3,000 to $4,200 at public 4-year institutions and from $3,600 to $4,500 at private, not-for-profit institutions (*Indicator 15*).

Progress

To benefit fully from educational opportunities, individuals must complete various levels of education. Thus, it is just as important to monitor students' progress through education as it is to monitor their access to and participation in various levels of education.

Dropping out of school has both negative economic and social consequences. For example, high school dropouts experience lower rates of employment and earn less money than those who attain higher levels of education. In October 1996, 5 percent of students enrolled in grades 10–12 the previous October were not enrolled again and had not completed high school—that is, they had dropped out of high school sometime during the year. Between 1972 and 1996, the dropout rate for whites and blacks decreased, while the dropout rate for Hispanics was not significantly different. Although the dropout rate for blacks decreased at a faster rate than that for whites, blacks and Hispanics were still more likely to drop out of school than their white peers (*Indicator 6*).

Higher education provides a wide range of individual, societal, and economic benefits. However, access to higher education depends on more than just completing high school. Students who wish to attend 4-year institutions must prepare for college by following a series of steps: successfully completing a rigorous high school curriculum, taking college admissions tests such as the SAT or the ACT, and applying to college. A student's opportunity to attend a 4-year institution is not equally shared by all high school graduates. For example, 86 percent of 1992 high school graduates from high income families were academically qualified for college admission at a 4-year institution, compared to 68 percent of middle income and 53 percent of low income graduates. Race/ethnicity was also associated with students' qualifications to attend college. White and Asian/Pacific Islander 1992 high school graduates were more likely to be college qualified than their black and Hispanic peers (table 8-1, *Indicator 8*).

Once students enroll in postsecondary education, they have taken the first step toward obtaining a certificate, or an associate or bachelor's degree. While many students enroll in postsecondary education, a large proportion of them do not complete their degrees. In 1994, slightly more than half (54 percent) of students seeking a bachelor's degree who had begun their postsecondary education during the 1989–90 school year had attained any type of degree, whether it was a certificate, associate degree, or bachelor's degree. Eighteen percent were still enrolled for a bachelor's degree, while 28 percent were no longer enrolled in school (*Indicator 12*).

Preprimary education enrollment

Participating in early childhood programs such as Head Start, nursery school, prekindergarten, and kindergarten can better prepare a child to enter first grade. Many policymakers and educators believe that it is important to help all children start elementary school on an equal footing with other children. Involving students in preprimary programs beginning at earlier ages may provide these students with valuable experiences that will help them start elementary school better prepared to learn.

- Preprimary enrollment rates for 3-, 4-, and 5-year-olds were higher in 1996 than in 1991. In 1996, 37 percent of 3-year-olds, 58 percent of 4-year-olds, and 90 percent of 5-year-olds were enrolled in preprimary education.
- In 1996, similar percentages of white and black 3- and 4-year-olds were enrolled in center-based programs, while their Hispanic peers were less likely to be enrolled (see supplemental table 1-1).
- Three- and 4-year-olds from families with incomes of more than $50,000 were more likely than 3- and 4-year-olds from families with incomes of $50,000 or less to be enrolled in preprimary education.
- There was a positive relationship between parents' educational attainment and the enrollment rates of 3- and 4-year-olds: as parents' educational attainment increased, so did the preprimary enrollment rates of their children. However, enrollment rates of 5-year-olds were similar, regardless of their parents' educational attainment.

Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs or kindergarten,[1] by selected student characteristics: 1991, 1993, 1995, and 1996

	3-year-olds				4-year-olds				5-year-olds			
Selected student characteristics	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	**31.4**	**34.1**	**37.4**	**36.7**	**52.7**	**55.3**	**60.9**	**57.7**	**86.4**	**90.0**	**90.3**	**90.2**
Race/ethnicity												
White	33.4	33.7	40.2	39.6	52.4	53.7	60.8	58.8	85.7	88.9	88.6	88.8
Black	31.6	41.9	41.1	40.5	57.4	62.9	68.2	67.8	92.3	93.2	93.7	94.1
Hispanic	19.8	27.2	21.2	22.1	47.5	48.9	49.0	45.3	85.3	91.4	93.4	90.4
Household income												
$10,000 or less	25.4	32.7	26.2	26.0	43.3	52.6	54.3	52.7	86.1	89.2	90.9	92.7
10,001–20,000	23.2	21.6	27.0	28.0	45.0	47.2	52.3	45.3	84.6	90.4	89.7	87.6
20,001–35,000[2]	21.3	22.2	27.7	30.8	48.0	47.8	49.7	50.6	85.1	86.8	90.7	87.8
35,001–50,000[2]	33.4	37.9	38.1	42.2	52.3	57.2	59.5	58.2	87.3	90.6	88.5	89.7
50,001 or more	52.9	58.7	61.2	55.0	74.8	73.2	80.7	75.8	89.0	93.7	90.9	92.8
Parents' highest education level												
Less than high school diploma	17.3	17.1	16.0	[3]22.0	33.1	42.8	[3]42.4	[3]47.3	85.5	79.9	92.5	90.3
High school diploma or GED	23.0	23.0	26.3	28.9	40.8	43.2	51.1	47.3	84.8	89.0	89.2	89.9
Some college/vocational/technical	31.0	35.9	35.6	34.5	56.3	61.1	63.3	59.8	87.7	91.1	90.2	88.6
Bachelor's degree	41.5	41.1	51.7	49.6	67.2	64.1	70.7	62.6	88.1	92.5	91.6	92.6
Graduate/professional school	53.0	61.9	[3]60.8	60.4	72.0	73.3	77.9	78.1	87.0	94.3	89.8	92.1
Family structure												
Two biological or adoptive parents	—	34.4	38.6	38.0	—	55.1	61.3	57.8	—	89.1	88.8	89.0
One biological or adoptive parent	—	33.8	36.9	37.3	—	57.2	63.0	58.4	—	92.1	94.0	91.9
One biological/adoptive and one step parent	—	[3]32.7	[3]23.1	[3]14.7	—	[3]49.5	[3]46.9	[3]45.8	—	87.3	89.4	93.2
Other relatives	—	[3]34.8	[3]20.8	[3]23.1	—	[3]52.2	[3]61.3	[3]55.9	—	[3]92.6	[3]88.0	96.5

— Not available.

[1] See the glossary for definitions of center-based programs and kindergarten.

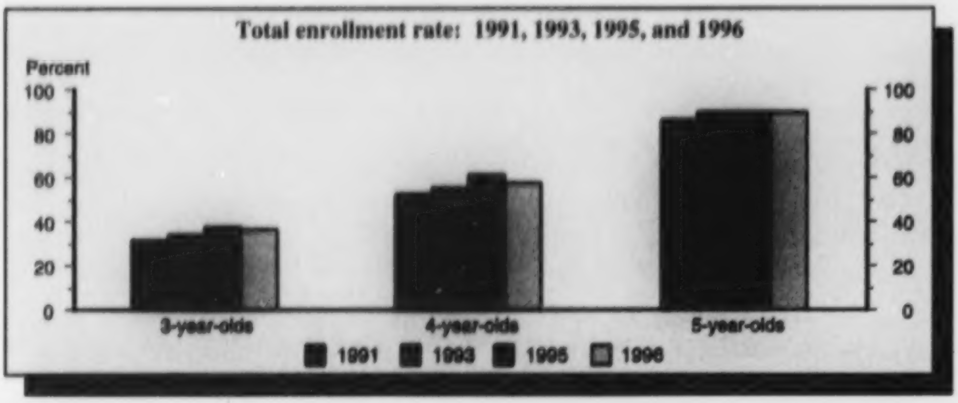
[2] The middle two income ranges in 1991 were $20,001–30,000 and $30,001–50,000, respectively.

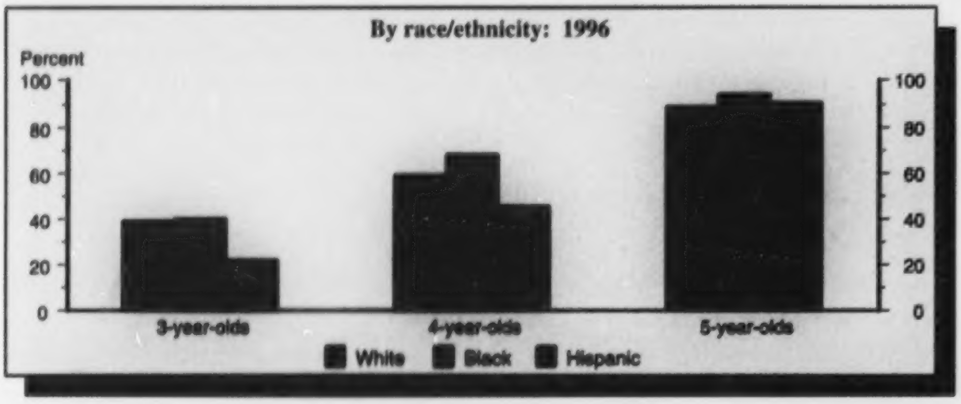
[3] Interpret with caution; standard errors are large due to small sample sizes.

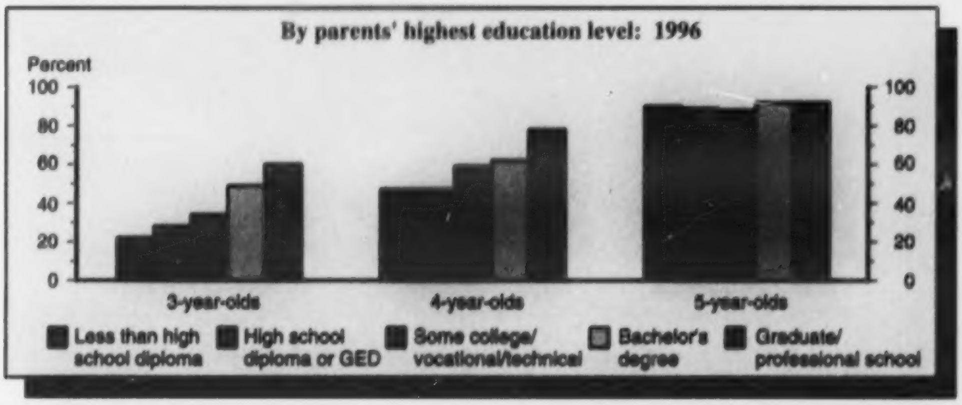
NOTE: Included in the total but not shown separately are children from other racial/ethnic groups and other types of family structures. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs or kindergarten*


Total enrollment rate: 1991, 1993, 1995, and 1996


By race/ethnicity: 1996


By parents' highest education level: 1996

* See the glossary for definitions of center-based programs and kindergarten.

NOTE: Included in the total but not shown separately are children from other racial/ ethnic groups. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Early literacy experiences in the home

Family participation in literacy activities provides valuable developmental experiences for young children. In addition to developing an interest in reading, children who are read to, told stories, and visit the library may start school better prepared to learn. Engaging young children in literacy activities at home also enables parents and other family members to become active participants in their children's education at an early age.

- In 1996, more than 80 percent of children ages 3–5 were read to three or more times or told a story in the past week by a parent or family member, while 38 percent had visited a library in the past month. The percentage of children who were read to or told a story increased between 1991 and 1996.
- Children ages 3–5 who were not enrolled in preprimary education were just as likely to have been told a story by a parent or family member in the past week as their peers who were enrolled in kindergarten in 1996. However, children ages 3–5 who were not enrolled in preprimary education were less likely to have been read to three or more times in the past week or to have visited a library in the past month than children who were enrolled in kindergarten.
- White children ages 3–5 were more likely to have been read to three or more times in the past week than their black or Hispanic counterparts in 1996. Additionally, white children were more likely to have visited a library in the past month than their black and Hispanic peers.
- In 1996, children ages 3–5 whose parents' highest education was a bachelor's degree or higher were more likely to have been read to at least three times in the past week or to have visited a library in the past month than children whose parents' highest education level was a high school diploma or GED.

Percentage of children ages 3–5 who participated in various literacy activities with a parent or family member, by selected characteristics: 1991, 1995, and 1996

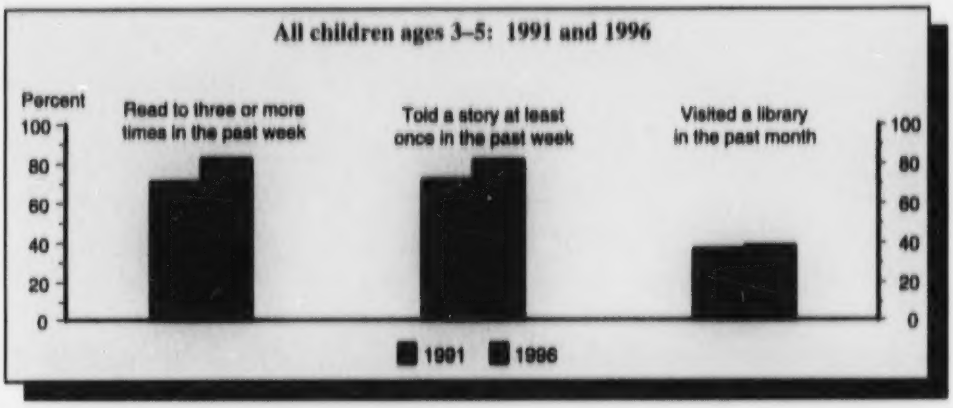
	Read to three or more times in the past week			Told a story at least once in the past week			Visited a library in the past month		
Selected characteristics	1991	1995	1996	1991	1995	1996	1991	1995	1996
Total	**71.4**	**83.1**	**82.9**	**72.0**	**81.4**	**82.0**	**36.6**	**41.2**	**38.2**
School enrollment status and level									
Not enrolled	68.8	81.5	80.0	72.3	80.3	80.0	30.5	32.0	31.5
Center-based programs*	75.2	85.8	85.2	74.1	82.7	84.0	41.0	46.3	42.6
Kindergarten*	71.1	81.3	83.8	68.8	81.0	81.9	41.7	47.3	42.1
Race/ethnicity									
White	77.7	89.0	88.9	73.8	83.9	83.9	40.7	45.1	42.5
Black	59.0	73.7	75.9	66.0	74.4	76.6	27.8	34.1	34.1
Hispanic	53.0	61.5	65.3	68.4	75.1	79.3	24.5	28.0	25.9
Parents' highest education level									
Less than high school diploma	53.8	64.4	58.8	67.4	71.9	72.8	18.3	18.3	19.4
High school diploma or GED	63.5	77.9	77.4	68.2	77.6	79.9	26.0	31.5	30.1
Some college/vocational/technical	74.0	85.3	86.5	74.2	82.9	84.6	38.5	40.9	37.1
Bachelor's degree	82.1	89.7	90.9	74.7	85.0	83.2	52.0	53.5	51.9
Graduate/professional school	88.3	94.0	96.1	78.4	88.2	85.8	59.1	62.8	59.5

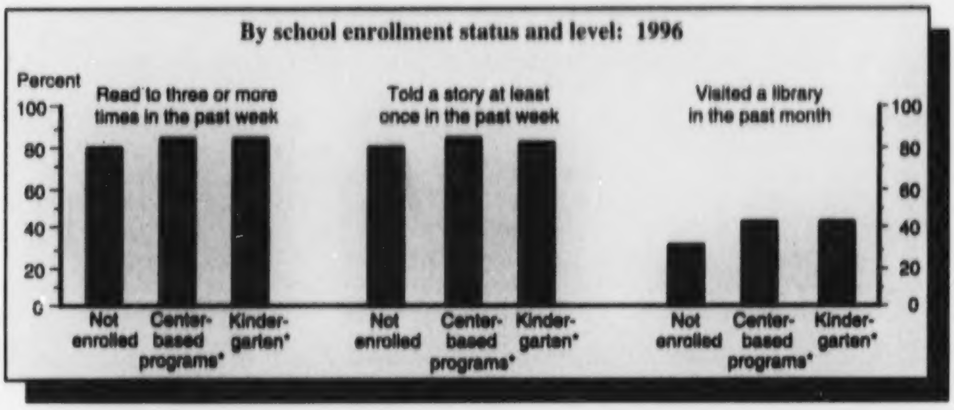
* See the glossary for definitions of center-based programs and kindergarten.

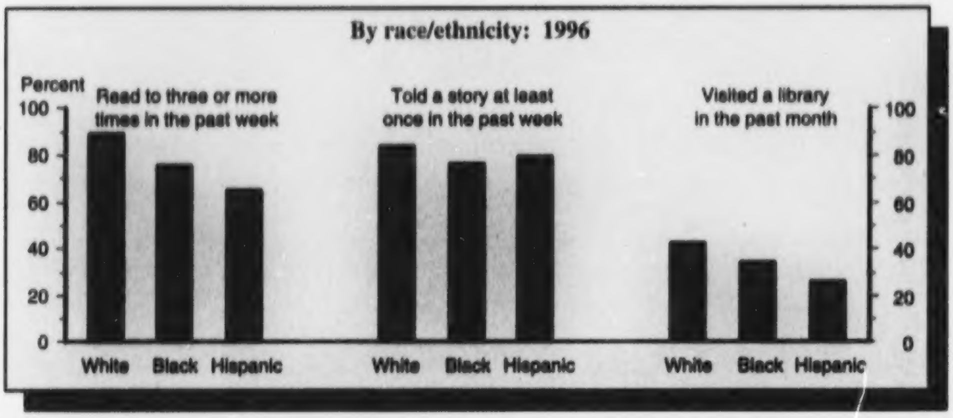
NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade. Included in the total but not shown separately are children from other racial/ethnic groups.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Percentage of children ages 3–5 who participated in various literacy activities with a parent or family member







* See the glossary for definitions of center-based programs and kindergarten.

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), and 1996 (Parent and Family Involvement in Education File).

Student computer use

Computers have become an essential tool in our society. Early exposure to computers may help students gain the computer literacy that will be crucial for future success in the workplace. Access to computers at school and at home allows students to retrieve information, manipulate data, and produce results efficiently and in innovative ways. Examining the extent to which students have access to computers at school and at home may be an indicator of how well-prepared students will be to enter an increasingly technological workplace.

- Between 1984 and 1996, the percentage of 4th-, 8th-, and 11th-graders who reported using a computer at school at least once a week increased substantially.
- The youngest students were more likely than older students to report that they used computers at school. In 1996, 72 percent of 4th-graders reported using a computer at school at least once a week, compared to 47 percent of 8th-graders and 50 percent of 11th-graders. However, 8th- and 11th- graders were more likely than 4th-graders to report using computers every day.
- In 1996, 79 percent of 4th-graders, 91 percent of 8th-graders, and 96 percent of 11th-graders reported using a computer at home or at school to write stories or papers, a substantial increase from 1984. The percentage of students who used a computer to learn things also increased between 1984 and 1996 for all three grades.
- Students from high income families were more likely to report using a computer at home or at school than students from low income families. Between 1984 and 1993, the percentage of students who reported using a computer at school increased by similar amounts across family income levels. However, the increase in the percentage of students who used a computer at home was higher for students from families with higher incomes (see supplemental table 3-1).

Percentage of students who reported using a computer at school, by grade and frequency of use: 1984–96

Frequency of use	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Never	61.2	29.8	18.9	16.5	14.0	11.4	66.7	41.8	40.5	37.6	27.7	23.3	55.0	44.7	44.9	27.2	26.1	16.0
Less than once a week	12.5	17.4	14.5	22.0	15.8	16.3	17.0	22.2	19.3	23.9	26.9	29.2	20.9	24.0	26.5	31.5	30.9	34.2
Once a week	15.5	34.2	41.1	37.0	39.6	36.0	8.1	13.9	12.9	12.8	16.1	14.5	5.7	6.4	6.6	10.8	8.0	15.3
Two or three times a week	7.6	15.0	17.7	18.6	22.8	26.5	4.6	12.2	16.0	15.1	14.5	16.2	6.3	9.7	8.3	11.3	12.4	16.5
Every day	3.2	3.6	7.8	5.9	7.7	9.9	3.6	9.8	11.3	10.5	14.9	16.7	12.1	15.2	13.7	19.2	22.6	18.1

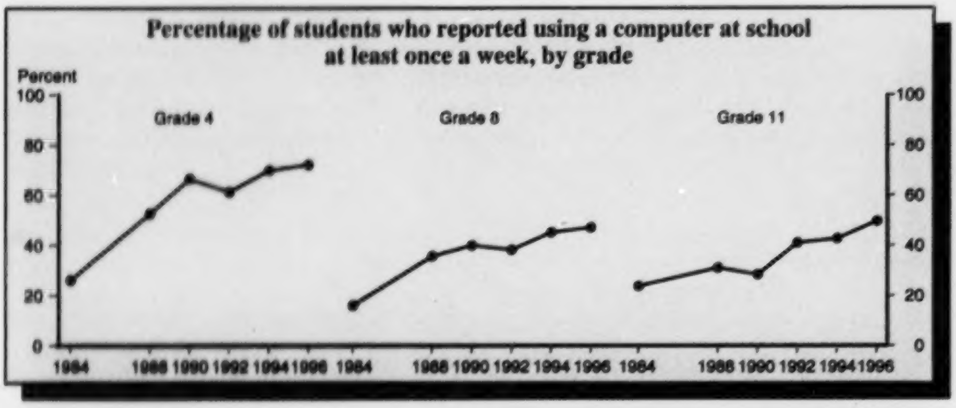
Percentage of students who used a computer at home or at school, by grade and reason for use: 1984–96

	Grade 4						Grade 8						Grade 11					
Reason for use	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
To play games	71.8	79.0	84.5	82.8	87.4	89.7	84.1	85.3	83.7	84.7	86.8	89.1	75.7	78.9	79.0	78.4	76.6	83.6
To learn things	67.9	70.4	75.8	82.9	82.0	87.5	58.2	73.7	70.5	72.8	76.4	82.6	54.6	65.3	64.5	72.3	70.7	80.2
To write stories or papers	23.4	39.6	48.6	56.9	68.3	79.2	15.0	58.4	61.3	73.1	82.3	91.2	18.8	61.2	68.9	84.1	86.9	95.7

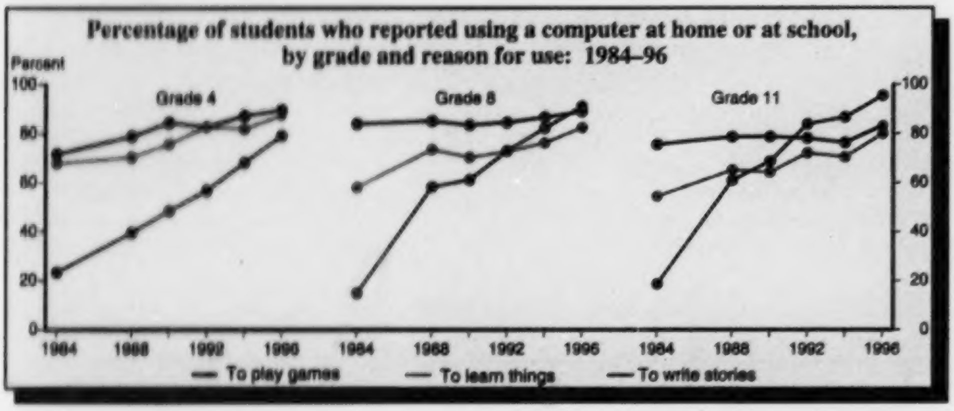
NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Writing, 1984 to 1996*, 1998.

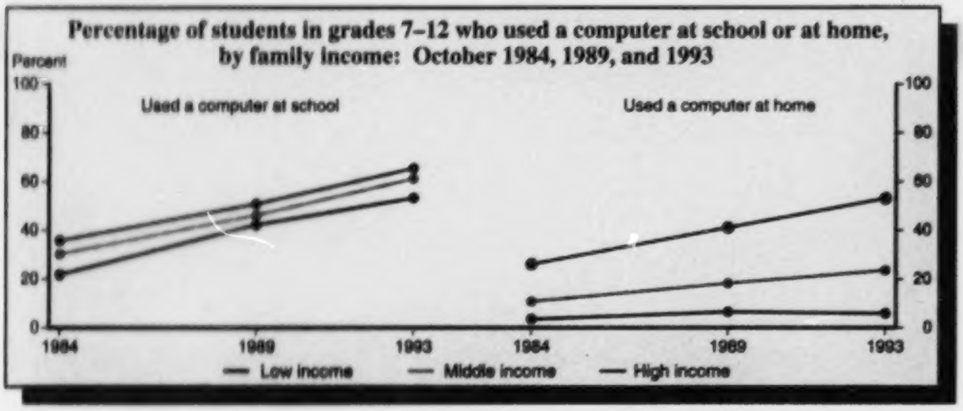
Percentage of students who reported using a computer



Percentage of students who reported using a computer at school at least once a week, by grade



Percentage of students who reported using a computer at home or at school, by grade and reason for use: 1984–96



Percentage of students in grades 7–12 who used a computer at school or at home, by family income: October 1984, 1989, and 1993

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Writing, 1984 to 1996*, 1998. U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Internet access in public and private schools

The Internet, with its vast array of information, can broaden the learning resources available through schools by providing teachers and students with connections to remote libraries, schools, and government agencies. Information found on the Internet can broaden students' knowledge base, and having Internet access can prepare students for an increasingly technological workplace. Examining patterns of Internet access in schools may help determine how many students will be prepared to use this technology effectively in the future.

- Between fall 1994 and 1997, Internet access in public schools increased from 35 to 78 percent. However, in fall 1997, 27 percent of instructional rooms had Internet access.
- In fall 1995, public schools were more likely to have Internet access than private schools (50 versus 25 percent). Additionally, public schools had a higher percentage of instructional rooms with Internet access than private schools (8 versus 5 percent) (see supplemental table 4-1).
- Public schools with a high percentage of low income students (71 percent or more of students eligible for free or reduced-price lunch) were less likely than schools with a low percentage of low income students (less than 11 percent of students eligible for free or reduced-price lunch) to have Internet access in fall 1997.
- In fall 1997, public schools with a high minority enrollment (50 percent or more) had a lower rate of Internet access than public schools with a low minority enrollment (less than 6 percent). Moreover, public schools with a high minority enrollment had a smaller percentage of instructional rooms with Internet access than public schools with a low minority enrollment.
- In both public and private schools with Internet access, teachers were more likely than students in these schools to have access to e-mail, news groups, resource location services, and the World Wide Web (see supplemental tables 4-2 and 4-3).

Percentage of public schools and instructional rooms with Internet access, by selected school characteristics: Fall 1994–97

	Percentage of schools with Internet access				Percentage of instructional rooms with Internet access[1]			
School characteristics	1994	1995	1996	1997	1994	1995	1996	1997
Total	**35**	**50**	**65**	**78**	**3**	**8**	**14**	**27**
Level of school[2]								
Elementary	30	46	61	75	3	8	13	24
Secondary	49	65	77	89	4	8	16	32
Percentage of students eligible for free or reduced-price lunch								
Less than 11	—	62	78	88	—	9	18	36
11–30	—	59	72	83	—	10	16	32
31–70	—	47	58	78	—	7	14	27
71 or more	—	31	53	63	—	3	7	14
Percentage of minority students enrolled								
Less than 6	—	52	65	84	—	9	18	37
6–20	—	58	72	87	—	10	18	35
21–49	—	54	65	73	—	9	12	22
50 or more	—	40	56	63	—	3	5	13

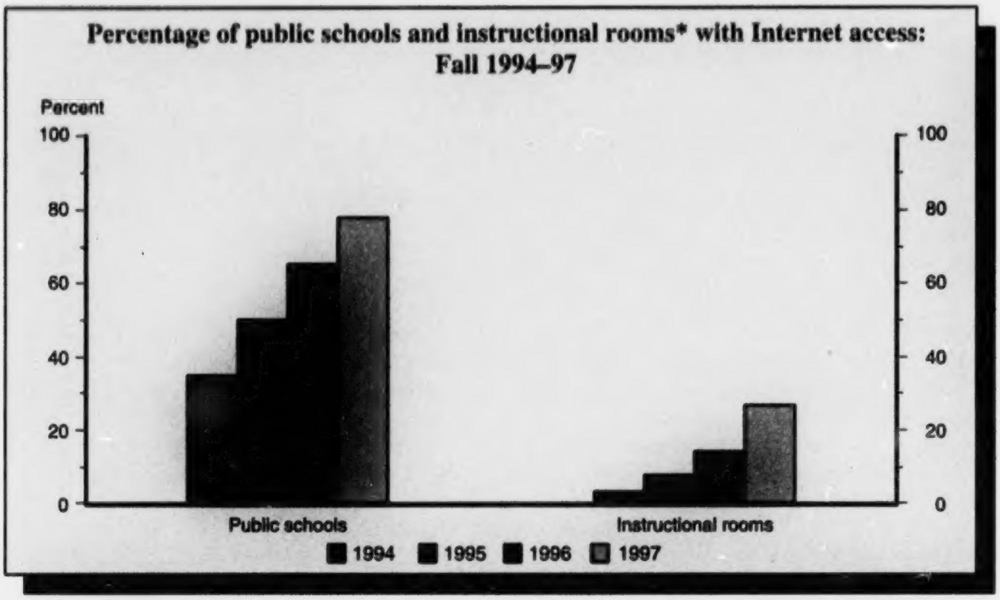
— Not available.

[1] Based on the total number of instructional rooms in regular public schools.

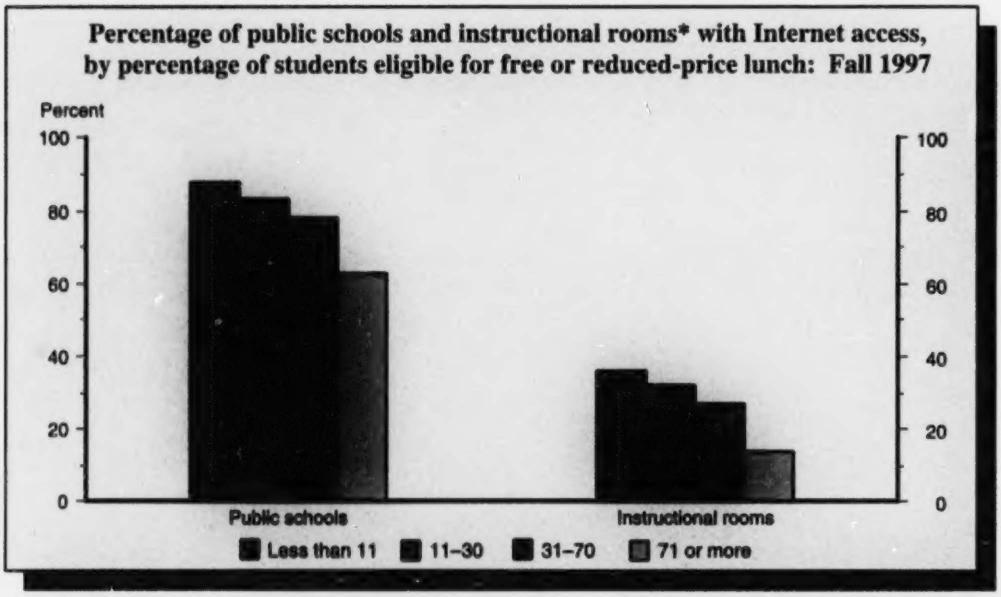
[2] Data for combined schools are not reported as a separate level of school because there are too few sample observations for reliable estimates. Data for combined schools are included in the totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Internet Access in Public Schools," Issue Brief and Issue Brief supplemental table 1, February 1998.

Internet access in public schools



Percentage of public schools and instructional rooms* with Internet access: Fall 1994–97



Percentage of public schools and instructional rooms* with Internet access, by percentage of students eligible for free or reduced-price lunch: Fall 1997

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* Based on the total number of instructional rooms in regular public schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997 and "Internet Access in Public Schools," Issue Brief, February 1998.

Summer activities of students enrolled in grades 1–12

Students engage in a variety of activities during their summer vacations that provide them with educational opportunities. Some students attend summer school to retake subjects failed during the academic year, to improve their basic skills, or to take courses that are unavailable or for which there is not sufficient time during the regular school year. If they are older, students may take college-level courses for credit. Other students may choose to participate in organized activities such as sports, or activities in which they do not have time to participate during the academic year, and some may work for pay or participate in internships or community service. Examining which summer activities students participate in may indicate which opportunities are valued most by students and their parents.

- In summer 1996, 9 percent of students in grades 1–12 attended summer school, and 38 percent participated in other organized summer activities. Among students who were enrolled in grades 8–12, 26 percent worked for pay during the summer, 2 percent participated in unpaid internships, and 9 percent participated in community service.

- In summer 1996, students in grades 1–7 were more likely than students in higher grades to attend summer school to improve basic skills, while students in grades 8–12 were more likely than students in grades 1–7 to attend summer school to retake a subject (see supplemental table 5-2).

- Black and Hispanic students in grades 1–12 were more likely to attend summer school than their white peers. White students in grades 8–12, however, were more likely than black and Hispanic students to work for pay and participate in community service.

- Students in grades 1–12 were equally likely to attend summer school, regardless of family income. In contrast, students from high income families were more likely to participate in community service and other organized summer activities and to work for pay than their peers from low or middle income families (see supplemental table 5-1).

Percentage of students ages 6–20 who were enrolled in grades 1–12 and who participated in various summer activities, by selected student characteristics: Summer 1996

Student characteristics	Attended summer school	Participated in other organized summer activities	Worked for pay[1]	Participated in unpaid internship[1]	Participated in community service[1]
Total[2]	**9.2**	**37.7**	**26.3**	**2.0**	**9.4**
Grade level					
1–7	7.5	41.9	—	—	—
8–10	9.9	35.5	13.2	1.8	9.0
11–12	14.9	27.7	47.5	2.3	10.4
Race/ethnicity					
White	7.3	45.0	30.8	2.2	10.9
Black	11.0	24.8	17.4	1.5	6.5
Hispanic	14.0	19.2	16.0	1.5	5.9
Parents' highest education level[3]					
Less than high school diploma	10.5	12.1	14.3	1.1	3.4
High school diploma or GED	7.8	28.1	25.6	1.8	5.8
Some college	9.5	40.5	29.5	2.0	10.2
Bachelor's degree or higher	9.9	57.2	28.6	2.6	15.0

— Not applicable.

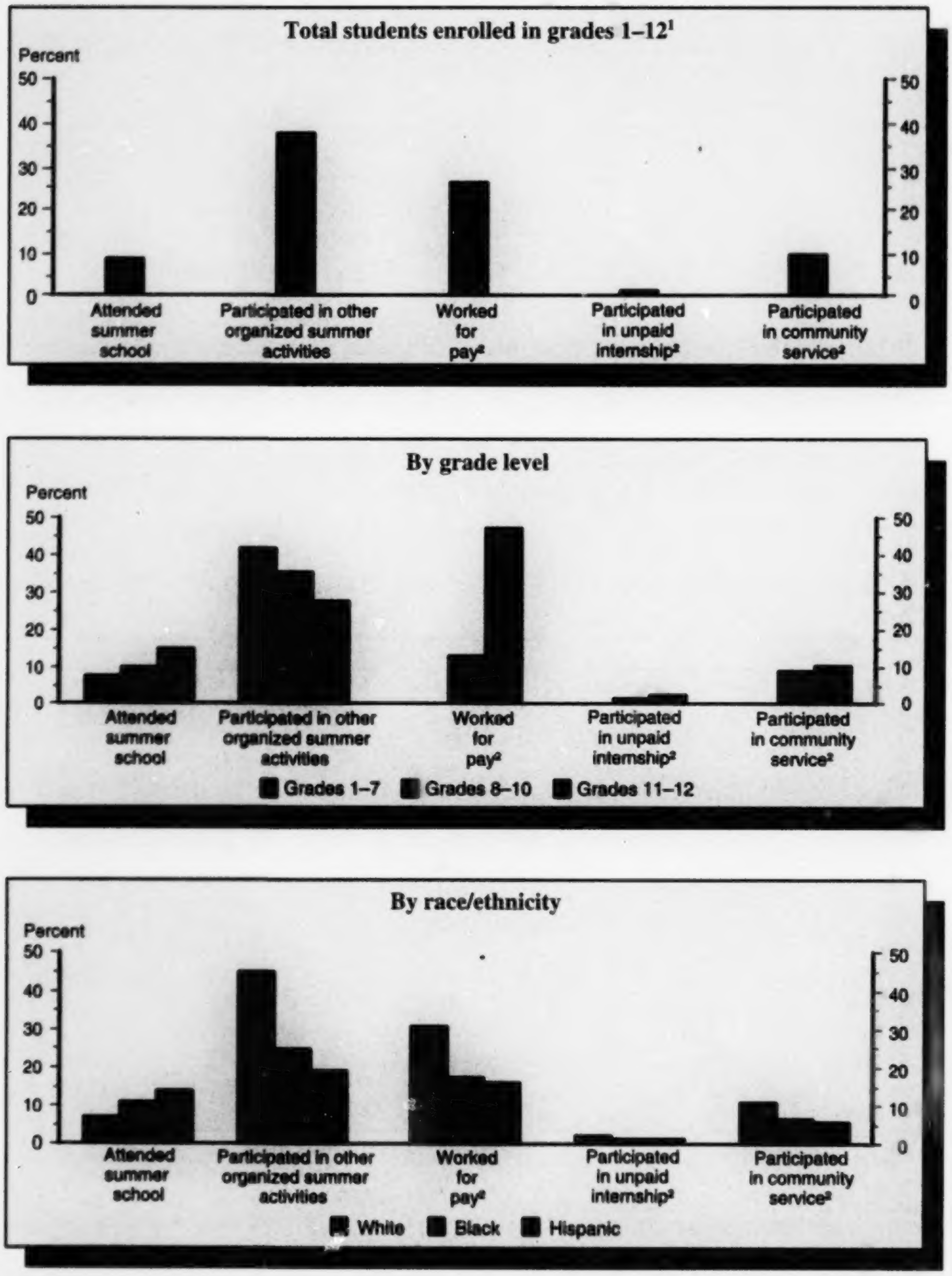
[1] For students enrolled in grades 8–12.

[2] Included in the total but not shown separately are students ages 6–20 whose grade levels were unknown, students from other racial/ethnic groups, and students whose parents' highest education level was not available.

[3] A parent's highest education level was determined by merging information from the parent's records with information from their child's records. When no parent resided with the student, information from the child's guardian was used.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Percentage of students ages 6–20 who were enrolled in grades 1–12 and who participated in various summer activities: Summer 1996



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[1] Included in the total but not shown separately are students ages 6–20 whose grade levels were unknown and students from other racial/ethnic groups.

[2] For students enrolled in grades 8–12.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Recent school dropouts

Students who drop out of school have fewer opportunities to succeed in the work force or to assume a fully functional place in society at large than those students who complete high school. The event dropout rate, a measure of the proportion of students who drop out in a single year without completing high school, is one of several ways to define dropout rates.

- In October 1996, 5 percent of students who were in grades 10–12 the previous October were not enrolled again and had not completed high school—that is, they had dropped out of high school sometime during the year.

- Between 1972 and 1996, the dropout rates for whites and blacks decreased while the dropout rate for Hispanics was not significantly different. Although the dropout rate for blacks decreased at a faster rate than that for whites, blacks and Hispanics were still more likely overall to drop out of school than their white peers.

- Between 1972 and 1996, students from low income families were more likely to drop out of high school than were their counterparts from middle and high income families.

- Between 1992 and 1996, high school students whose parents did not complete high school were more than twice as likely to drop out of school as students whose parents had at least some college education (see supplemental table 6-1).

Event dropout rates[1] for those in grades 10–12, ages 15–24, by sex, race/ethnicity, and family income: October 1972–96

		Sex		Race/ethnicity[2]			Family income[3]		
October	Total	Male	Female	White	Black	Hispanic	Low	Middle	High
1972	6.1	5.9	6.3	5.3	9.5	11.2	14.1	6.7	2.5
1974	6.7	7.4	6.0	5.8	11.6	9.9	—	—	—
1976	5.9	6.6	5.2	5.6	7.4	7.3	15.4	6.8	2.1
1978	6.7	7.5	5.9	5.8	10.2	12.3	17.4	7.3	3.0
1980	6.1	6.7	5.5	5.2	8.2	11.7	15.8	6.4	2.5
1982	5.5	5.8	5.1	4.7	7.8	9.2	15.2	5.6	1.8
1984	5.1	5.4	4.8	4.4	5.7	11.1	13.9	5.1	1.8
1986	4.7	4.7	4.7	3.7	5.4	11.9	10.9	5.1	1.6
1988	4.8	5.1	4.4	4.2	5.9	10.4	13.7	4.7	1.3
1990	4.0	4.0	3.9	3.3	5.0	7.9	9.5	4.3	1.1
1991	4.0	3.8	4.2	3.2	6.0	7.3	10.6	4.0	1.0
1992	4.4	3.9	4.9	3.7	5.0	8.2	10.9	4.4	1.3
1993	4.5	4.6	4.3	3.9	5.8	6.7	12.3	4.3	1.3
1994[4]	5.3	5.2	5.4	4.2	6.6	10.0	13.0	5.2	2.1
1995[4]	5.7	6.2	5.3	4.5	6.4	12.4	13.3	5.7	2.0
1996[4]	5.0	5.0	5.1	4.1	6.7	9.0	11.1	5.1	2.1

— Not available.

[1] The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not completed high school the following October.

[2] Included in the total but not shown separately are dropouts from other racial/ethnic groups.

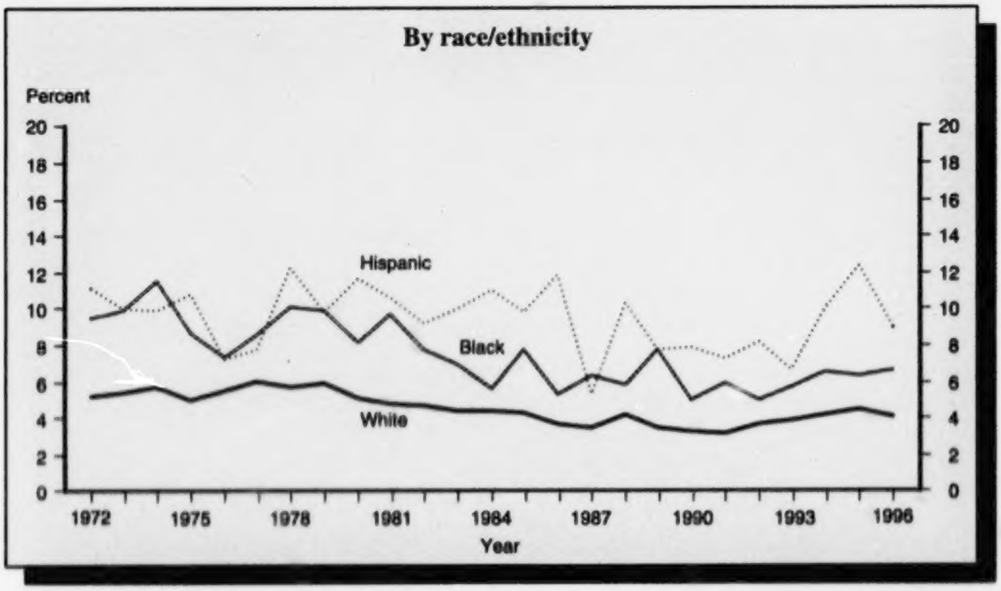
[3] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

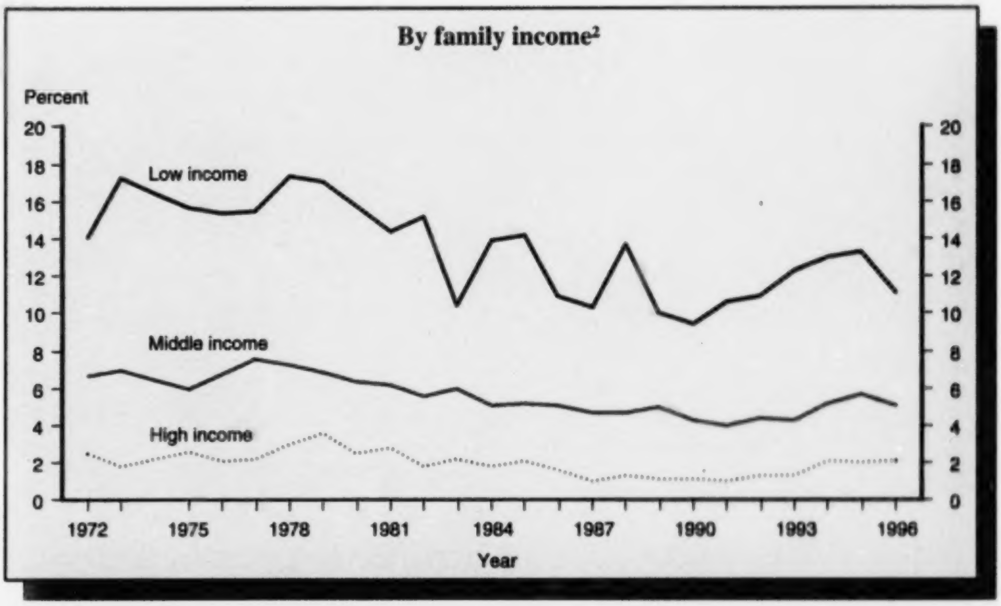
[4] Beginning in 1994, new survey collection techniques and population weighting were used. See the supplemental note to this indicator for further discussion.

NOTE: Beginning in 1992, the Current Population Survey (CPS) changed the questions used to obtain the educational attainment of respondents. See the supplemental note to this indicator for further discussion.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1996* (based on the October Current Population Surveys).

Event dropout rates[1] for those in grades 10–12, ages 15–24: October 1972–96





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[1] The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not completed high school the following October.

[2] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all incomes; and middle income is the 60 percent in-between. Data on family income were not available for 1974.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1996* (based on the October Current Population Surveys).

Immediate transition from high school to college

Since most college students enroll in college immediately after completing high school, the percentage of high school completers enrolled in college the October after finishing high school is an indicator of the total proportion of that year's high school completers who will ever enroll in college. The percentage enrolling not only reflects the accessibility of higher education to high school completers, but also shows the value completers place on attending college as compared to working, entering the military, starting families, or pursuing other interests.

- Between 1986 and 1996, the percentage of high school completers going directly to college increased from 54 to 65 percent (see supplemental table 7-1).
- Between 1986 and 1995, high school completers from high income families were more likely than their counterparts from low income families to go directly to college after completing high school (see supplemental table 7-1).
- Between 1990 and 1996, the higher the education level of a student's parents, the more likely the student was to enroll in college the year after completing high school (see supplemental table 7-2).
- The percentage of black high school completers going directly to college increased substantially between 1973 and 1995.

Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by type of institution, family income, and race/ethnicity: October 1972–96

				Family income[1]				Race/ethnicity[2]				
				Low		Middle	High	White	Black		Hispanic	
		Type of institution			3-year					3-year		3-year
October	Total	2-year	4-year	Annual	average	Annual	Annual	Annual	Annual	average	Annual	average
1972	49.2	—	—	26.1	(3)	45.2	63.8	49.7	44.6	(3)	45.0	(3)
1973	46.6	14.9	31.7	20.3	(3)	40.9	64.4	47.8	32.5	41.4	54.1	48.7
1975	50.7	18.2	32.6	31.2	(3)	46.2	64.5	51.1	41.7	44.4	58.0	52.5
1977	50.6	17.5	33.1	27.7	32.8	44.2	66.3	50.8	49.5	46.8	50.8	48.5
1979	49.3	17.5	31.8	30.5	31.5	43.2	63.2	49.9	46.7	45.3	45.0	46.4
1981	53.9	20.5	33.5	33.6	33.0	49.2	67.6	54.9	42.7	40.4	52.1	49.2
1983	52.7	19.2	33.5	34.6	34.0	45.2	70.3	55.0	38.2	37.9	54.2	47.3
1985	57.7	19.6	38.1	40.2	36.2	50.6	74.6	60.1	42.2	39.6	51.0	46.5
1987	56.8	18.9	37.9	36.9	37.8	50.0	73.8	58.6	52.2	44.5	33.5	44.9
1989	59.6	20.7	38.9	48.1	45.8	55.4	70.7	60.7	53.4	48.2	55.1	51.6
1990	60.1	20.1	40.0	46.7	44.7	54.4	76.6	63.0	46.8	48.9	42.7	51.7
1991	62.5	24.9	37.7	39.5	42.3	58.4	78.2	65.4	46.4	47.2	57.2	51.6
1992	61.9	23.0	38.9	40.9	43.6	57.0	79.0	64.3	48.2	50.1	55.0	58.1
1993	61.5	22.4	39.1	50.4	44.1	56.9	79.3	62.9	55.6	51.5	62.2	55.4
1994	61.9	21.0	40.9	41.0	41.9	57.8	78.4	64.5	50.8	52.5	49.1	55.0
1995	61.9	21.5	40.4	34.2	41.3	56.1	83.4	64.3	51.2	52.6	53.7	51.2
1996	65.0	23.1	41.9	48.6	(3)	62.7	78.0	67.4	56.0	(3)	50.8	(3)

— Not available. Data for type of institution were not collected until 1973.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between. See the supplemental note to this indicator for further discussion.

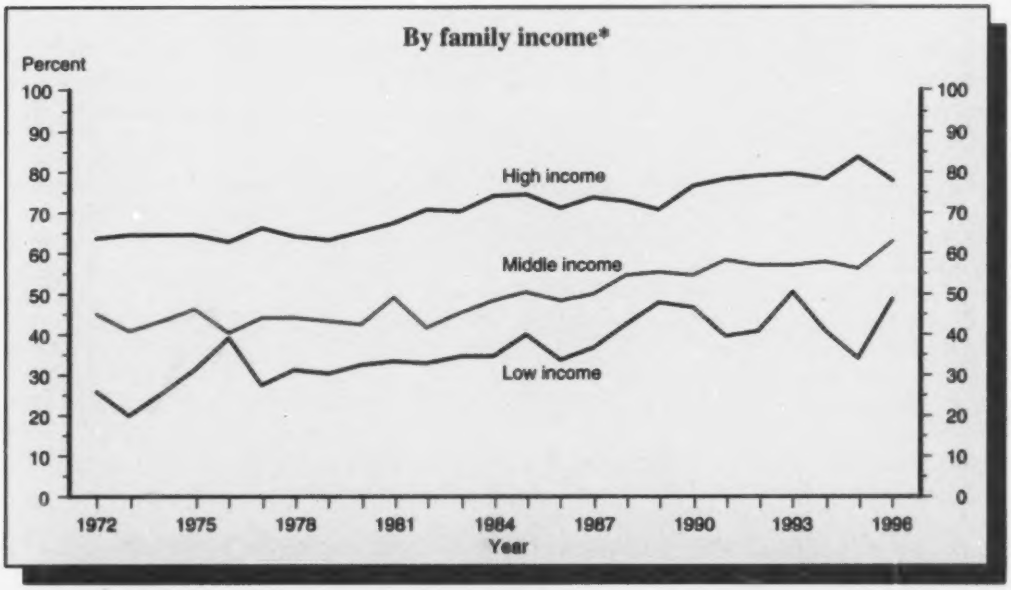
[2] Included in the total but not shown separately are high school completers from other racial/ethnic groups.

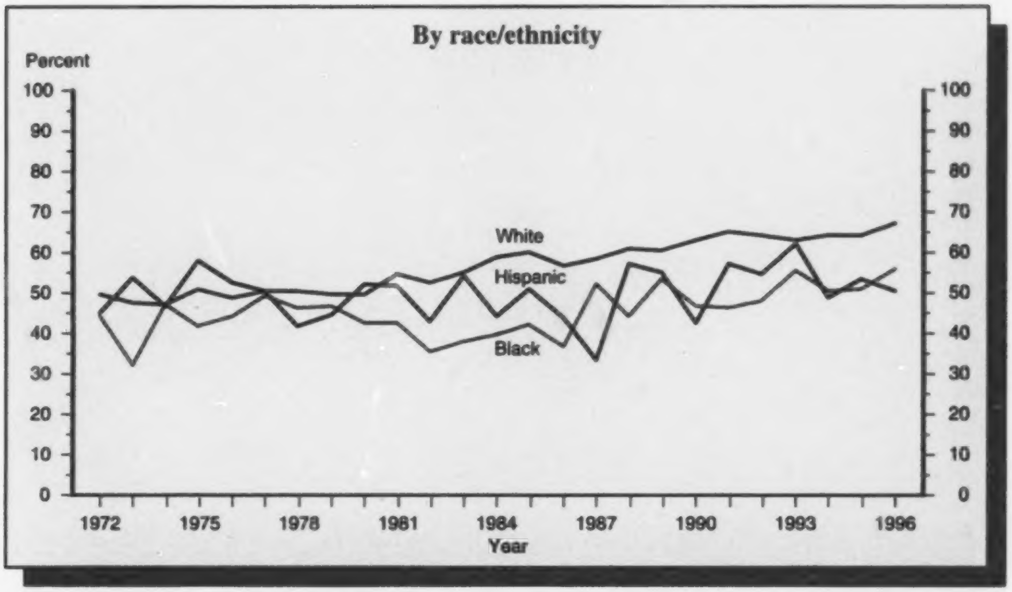
[3] Due to small sample sizes for the low income, black, and Hispanic categories, 3-year averages were also calculated for each category. For example, the 3-year average for blacks in 1973 is the average percentage of black high school completers ages 16–24 who were enrolled in college the October after completing high school in 1972, 1973, and 1974. Thus, 3-year averages cannot be calculated for 1972 and 1996, and for groups of 3 years in which some data are not available (e.g., 1973–75 for the low income category).

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October

Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school: October 1972–96





* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between. See the supplemental note to this indicator for further discussion. Data on family income were not available in 1974.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Access to higher education

Higher education provides a wide range of individual and social benefits. Access to 4-year institutions involves academic preparation, application, admission, and enrollment. Examining the elements of college access and enrollment relative to race/ethnicity and family income provides an important indicator of the educational opportunities available to high school graduates.

- Eighty-six percent of high school graduates from high income families were academically qualified for admission at a higher education institution, compared to 68 percent of middle income and 53 percent of low income graduates. High income students were twice as likely as middle income students and four times as likely as low income students to be very highly qualified for college admission (see supplemental table 8-1).
- About half of minority high school graduates were qualified for college admission, with the exception of Asian/Pacific Islanders (73 percent), while 68 percent of white high school graduates were qualified (see supplemental table 8-1).
- Among college-qualified high school graduates, there was a positive relationship between family income and each of the following access-related attitudes and behaviors: expecting to complete a bachelor's degree, planning to enroll at a 4-year institution after high school, taking steps toward admission, gaining admission, and enrolling at a 4-year institution.
- College-qualified Hispanic high school graduates were less likely than qualified white, black, and Asian/Pacific Islander graduates to take steps toward college admission or to enroll in a 4-year institution after high school. However, qualified black students did so at comparable rates to qualified white students.
- Among qualified students who took steps toward college admission, low and middle income students were equally likely to be accepted at a 4-year institution and to enroll. High income students were accepted and enrolled at higher rates than low or middle income students (see supplemental table 8-2).

Percentage of college-qualified[1] 1992 high school graduates who expected to earn a bachelor's degree, planned to attend a 4-year institution, took steps toward admission, and were accepted at a 4-year institution, and percentage distribution according to postsecondary attendance by 1994, by race/ethnicity and family income

Race/ethnicity and family income	Expected a bachelor's degree	Planned to attend a 4-year institution	Took steps[2] toward admission	Accepted at a 4-year institution	Postsecondary attendance by 1994[3]			
					Any 4-year institution	Public 2-year college	Other less-than-4-year	Did not attend
Total	**83.3**	**76.2**	**72.6**	**68.6**	**62.0**	**22.7**	**2.9**	**12.3**
Race/ethnicity								
White	83.4	76.2	73.2	69.3	62.9	22.8	3.0	11.4
Black	82.7	79.0	74.4	70.0	64.2	14.5	3.2	18.1
Hispanic	78.3	69.2	61.5	57.6	49.2	29.7	3.4	17.8
Asian/Pacific Islander	89.9	84.4	80.1	75.1	68.1	22.3	1.7	7.8
American Indian/Alaskan Native	81.3	59.0	51.0	42.6	37.2	31.1	1.9	29.9
Family income								
Low (less than $25,000)	74.2	68.6	61.5	59.0	52.2	21.2	4.3	22.3
Middle ($25,000–74,999)	84.4	76.3	73.3	68.8	61.7	25.2	3.1	10.1
High ($75,000 or more)	95.5	91.2	90.7	88.5	83.1	11.9	1.4	3.6

[1] Four-year college qualification index based on high school GPA, senior class rank, NELS 1992 aptitude test, SAT and ACT scores, and curricular rigor. See the supplemental note to this indicator for further discussion.

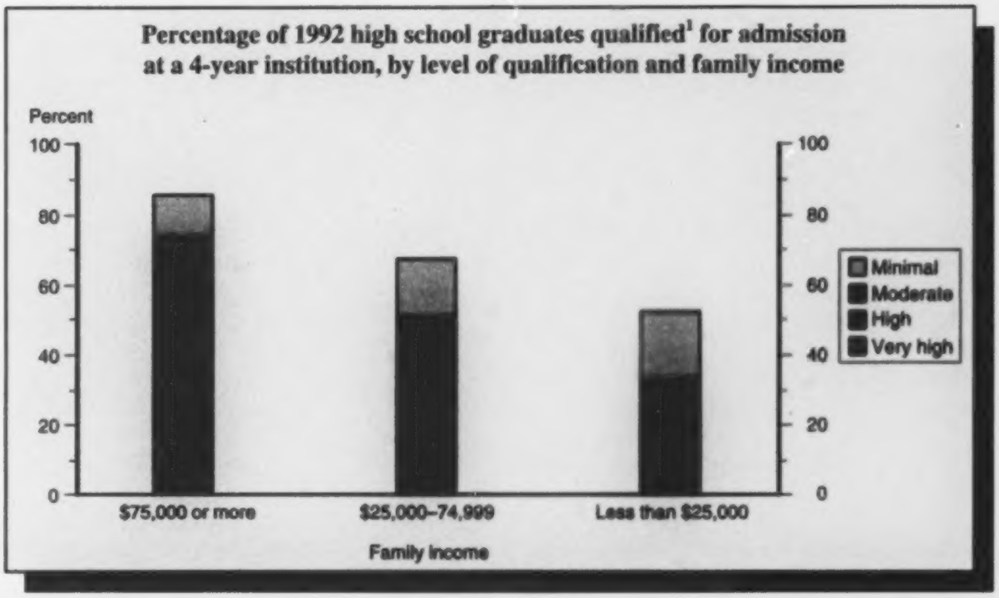
[2] Took a college entrance examination (SAT or ACT) and applied for admission to a 4-year institution.

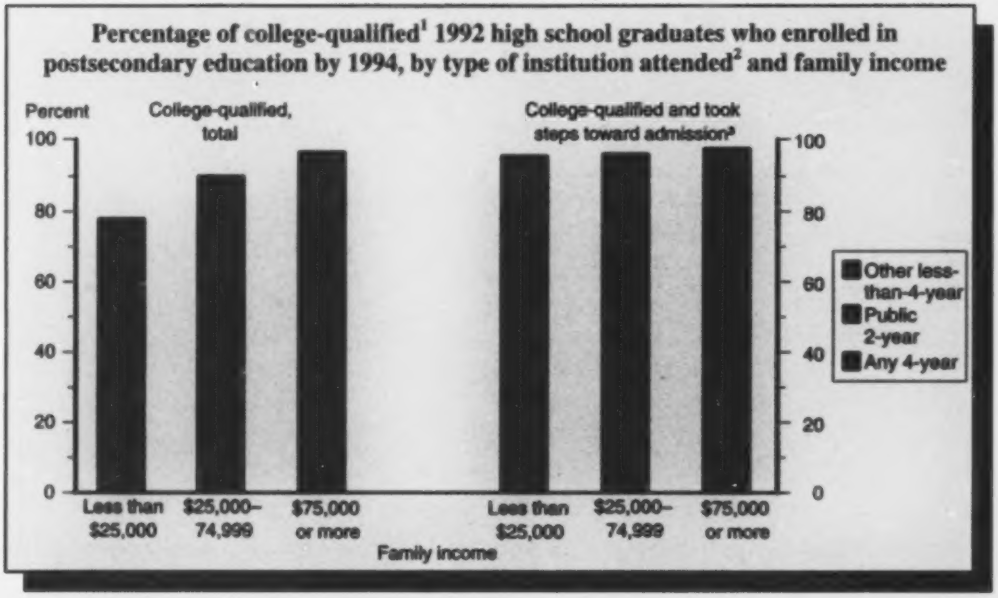
[3] First institution attended, if any.

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88), Third Follow-up (1994).

Access of 1992 high school graduates to higher education


Percentage of 1992 high school graduates qualified[1] for admission at a 4-year institution, by level of qualification and family income


Percentage of college-qualified[1] 1992 high school graduates who enrolled in postsecondary education by 1994, by type of institution attended[2] and family income

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[1] Four-year college qualification index based on high school GPA, senior class rank, NELS 1992 aptitude test, SAT and ACT scores, and curricular rigor. See the supplemental note to this indicator for further discussion.

[2] First institution attended, if any.

[3] Took a college entrance examination (SAT or ACT) and applied for admission to a 4-year institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88), Third Follow-up (1994).

Racial and ethnic differences in participation in higher education

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Racial and ethnic differences in college enrollment rates may reflect differences in access to and persistence in higher education for groups with varying social and economic backgrounds. Differing enrollment rates are also a leading indicator of future differences in the earnings and productivity associated with postsecondary education. The college enrollment rates for 18- to 24-year-olds are influenced by the number who enroll immediately after completing high school, the number who delay entry, and the number of years individuals in both of these groups stay in higher education.

- In 1996, white high school completers ages 18–24 were more likely to be enrolled in college (45 percent) than were their black and Hispanic counterparts. This contrasts with the mid- to late-1970s, when whites, blacks, and Hispanics showed similar rates of college enrollment. However, in 1996, blacks and Hispanics of the same age group still showed similar rates of enrollment (36 and 34 percent, respectively).

- The percentage of high school completers ages 18–24 who were enrolled in college was higher for whites and blacks in 1996 than in 1972. During this period, the college enrollment rates for whites grew substantially, rising from 33 to 45 percent, with most of the growth occurring after 1986. College enrollment rates for blacks of the same age group grew from 29 percent in 1986 to 36 percent in 1996.

- In 1996, enrollment rates in 2-year institutions were similar for white, black, and Hispanic high school completers ages 18–24. However, both black and Hispanic high school completers ages 18–24 were less likely to be enrolled in 4-year institutions than their white counterparts (see supplemental table 9-1).

- In 1996, college enrollment rates were similar for white, black, and Hispanic high school completers ages 25–34 (ranging from 9 percent for whites to 11 and 10 percent for blacks and Hispanics, respectively). The college enrollment rates of high school completers age 35 and older were also similar: 2 percent of whites were enrolled, compared to 4 percent of blacks and 3 percent of Hispanics.

Percentage of high school completers enrolled in college, by age and race/ethnicity: October 1972–96

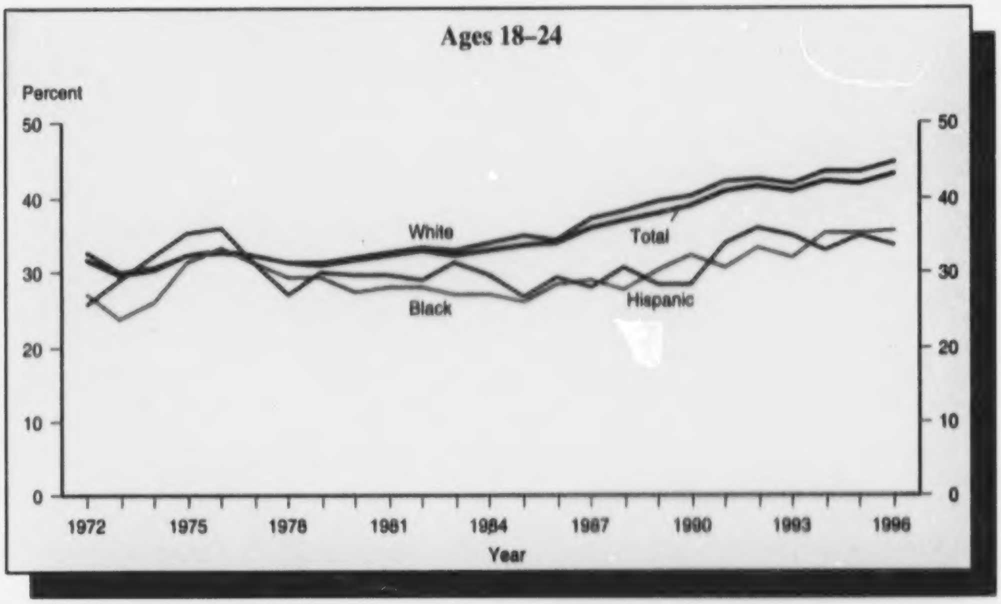
	Ages 18–24				Ages 25–34				Age 35 or older			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1972	31.9	32.6	27.2	25.8	8.4	8.4	8.8	7.5	—	—	—	—
1974	30.5	30.6	26.2	32.3	9.3	9.1	10.8	10.0	—	—	—	—
1976	33.1	32.8	33.4	35.9	9.6	9.2	11.9	11.0	2.3	2.1	4.1	3.9
1978	31.4	31.3	29.6	27.1	9.1	8.8	10.8	10.2	2.4	2.2	3.8	4.2
1980	31.8	32.1	27.6	29.9	8.9	8.7	9.6	9.2	2.1	2.0	3.4	2.9
1982	33.0	33.3	28.1	29.2	8.9	8.7	9.6	9.7	2.2	2.1	2.7	2.9
1984	33.2	33.9	27.2	29.9	8.6	8.4	8.0	9.9	2.1	2.0	2.7	1.8
1986	34.0	34.5	28.6	29.4	8.3	7.9	7.9	10.4	2.4	2.2	3.3	3.4
1988	37.0	38.4	27.8	30.8	8.0	7.8	7.5	7.8	2.7	2.6	3.3	3.4
1990	39.0	40.3	32.4	28.4	8.6	8.7	5.9	7.0	2.7	2.6	2.9	3.9
1991	40.8	42.3	30.8	33.9	9.0	8.7	8.1	8.6	2.7	2.6	3.4	2.9
1992	41.6	42.5	33.4	36.1	8.6	8.5	6.7	8.5	2.5	2.5	2.6	2.7
1993	41.0	42.0	32.2	34.9	8.5	8.2	8.1	9.5	2.6	2.4	3.3	3.1
1994	42.2	43.6	35.5	32.9	9.5	9.1	9.7	10.1	2.7	2.5	3.5	4.3
1995	42.1	43.7	35.2	34.9	9.4	9.3	9.1	8.0	2.6	2.4	3.5	3.8
1996	43.3	45.0	35.7	33.8	9.7	9.1	10.9	9.8	2.6	2.4	3.7	3.4

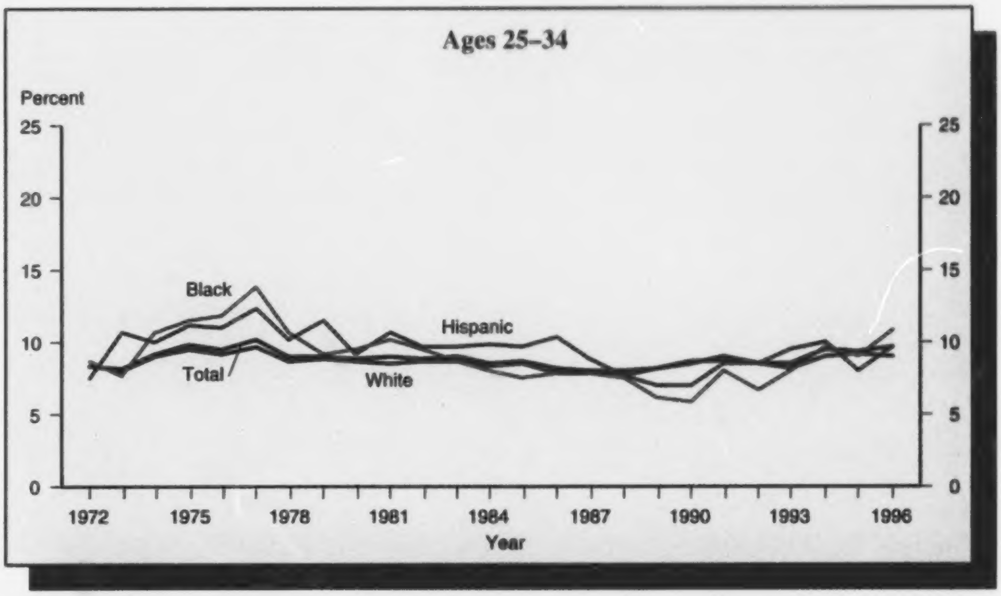
— Not available.

NOTE: Included in the total but not shown separately are high school completers from other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of high school completers enrolled in college, by age and race/ethnicity: October 1972–96





NOTE: Included in the total but not shown separately are high school completers from other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Enrollment patterns of first-time beginning postsecondary students

Individuals deciding to pursue postsecondary education have a number of options. They can choose, for example, to enroll in a short-term vocational program offered at a less-than-2-year institution, an associate degree program at a 2-year college, or a bachelor's degree program at a public or private 4-year institution. Alternatively, they can enroll in courses to earn a certificate, develop job skills, or pursue personal interests. Enrollment patterns provide an indication of how students are using the postsecondary education system.

- In 1995–96, about 40 percent of all first-time beginning postsecondary students enrolled in 4-year institutions (25 percent at public institutions and 15 percent at private, not-for-profit institutions). Another 46 percent enrolled in public 2-year institutions. The overall enrollment pattern of 1995–96 first-time beginners resembles that of their 1989–90 counterparts.
- In 1995–96, 25 percent of financially dependent students from families with incomes of $60,000 or more enrolled in private, not-for-profit 4-year institutions, a considerably higher percentage than that for students from families with incomes in the $30,000–59,999 range (16 percent) or with incomes less than $30,000 (14 percent).
- Among students who enrolled in less-than-4-year institutions, the primary reasons for enrolling varied by age. For example, 18- to 19-year-olds were more likely to cite transferring to a 4-year institution as their primary reason for enrolling, while students age 20 or older were more likely to cite obtaining job skills as their primary reason for enrolling.

Percentage distribution of first-time beginning postsecondary students, by type of institution, primary reason for enrolling in a less-than-4-year institution, and selected student and institutional characteristics: Academic years 1989–90 and 1995–96

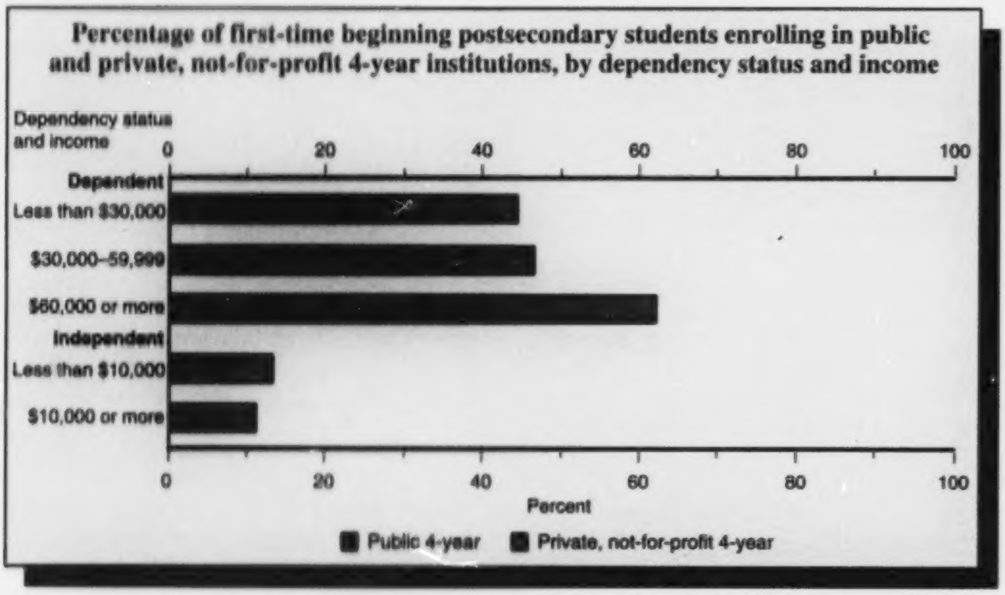
	Type of institution					Primary reason for enrolling in a less-than-4-year institution			
Selected student and institutional characteristics	Public 4-year	Public 2-year	Private, not-for-profit 4-year	Private, for-profit	Other	Obtain job skills	Earn degree or certificate	Transfer to a 4-year institution	Other
				Academic year 1989–90					
Total	**27.6**	**44.8**	**13.2**	**10.4**	**4.0**	—	—	—	—
				Academic year 1995–96					
Total	**25.4**	**45.7**	**14.5**	**11.3**	**3.2**	**33.0**	**20.3**	**28.9**	**17.8**
Dependency status and income									
Dependent, less than $30,000	30.0	43.3	14.4	9.7	2.6	25.2	24.1	31.5	19.2
Dependent, $30,000 to $59,999	30.1	47.0	16.4	4.6	2.0	21.5	18.6	41.0	18.9
Dependent, $60,000 or more	37.3	34.3	24.8	2.5	1.2	13.2	16.3	56.0	14.5
Independent, less than $10,000	8.6	46.4	4.7	34.9	5.4	50.3	18.4	14.6	16.8
Independent, $10,000 or more	7.1	61.8	4.1	19.9	7.1	50.9	22.4	8.4	18.4
Age as of 12/31/95									
18–19	32.5	41.2	18.9	5.7	1.7	20.2	20.3	43.2	16.3
20–23	19.0	48.6	7.8	19.8	4.9	39.2	23.5	17.1	20.1
24 or older	6.7	58.0	4.3	24.0	7.0	54.4	18.8	8.1	18.6
Type of institution									
Public 2-year	—	100.0	—	—	—	22.6	21.4	36.7	19.3
Private, for-profit	—	—	—	100.0	—	69.0	16.6	1.3	13.0

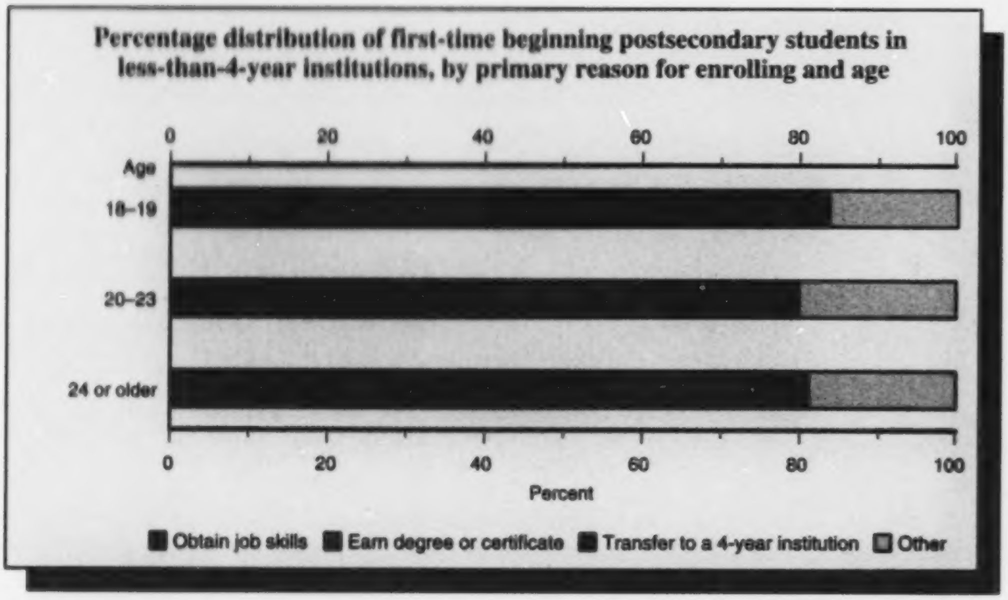
— Not available or not applicable.

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study (BPS: 90/94) and 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Patterns of enrollment among first-time beginning postsecondary students: Academic year 1995–96


Percentage of first-time beginning postsecondary students enrolling in public and private, not-for-profit 4-year institutions, by dependency status and income


Percentage distribution of first-time beginning postsecondary students in less-than-4-year institutions, by primary reason for enrolling and age

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Community college outcomes

About 45 percent of first-time undergraduates attend public 2-year colleges. These institutions serve many purposes: they provide vocational training and skill development; they offer an inexpensive way to complete lower division requirements before entering a 4-year institution; and they offer avocational courses for those with special interests. Examining outcomes for students who began their postsecondary education at public community colleges provides insight into how these diverse needs are being met.

- Among students who began their postsecondary education at a community college in 1989–90, 37 percent completed a degree at some institution by 1994; 22 percent of these students completed a certificate or an associate degree at their first institution. Those who did not complete a credential at their first institution spent a substantial amount of time there—an average of 14 months of enrollment.

- Nineteen percent of those beginning community college in 1989–90 transferred to a public 4-year institution, and 3 percent transferred to a private 4-year institution (see supplemental table 11-1). Of those who transferred to a 4-year institution, 38 percent completed an associate degree before transferring.

- By 1994, 26 percent of those who transferred to a 4-year institution had completed a bachelor's degree, and 44 percent were still enrolled at a 4-year institution.

- The higher a student's socioeconomic status (SES), the more likely that student was to transfer to a 4-year institution: 35 percent of high SES students transferred, compared to 21 percent of middle SES and 7 percent of low SES students (see supplemental table 11-1).

Percentage distribution of 1989–90 beginning students at community colleges and average number of months enrolled at first institution, by attainment at first institution and 1994 attainment/enrollment status

	Attainment at first institution[1]			1994 attainment at any institution									
				Attained[2]						No degree			
					Certificate		Associate			Enrolled			
Selected characteristics	None	Certificate	Associate	Total	Not enrolled at 4-year	Enrolled at 4-year	Not enrolled at 4-year	Enrolled at 4-year	Bachelor's	Total	Less-than-4-year[3]	4-year	Not enrolled
Total	**77.8**	**5.0**	**17.2**	**36.7**	**12.3**	**0.6**	**13.5**	**4.0**	**6.3**	**14.7**	**9.6**	**5.1**	**48.6**
Age as of 12/31/89													
18 years or younger	71.6	2.6	25.9	47.4	8.0	1.4	19.7	6.4	11.9	14.9	7.5	7.4	37.7
19 years	79.5	5.8	14.7	31.9	12.7	0.0	13.2	3.9	2.2	20.8	12.7	8.1	47.3
20–29 years	83.1	6.5	10.4	27.3	16.4	0.0	6.5	1.8	2.5	13.0	11.2	1.8	59.8
30 years or older	86.0	8.9	5.1	25.7	18.2	0.0	6.3	0.6	0.6	9.2	9.2	0.0	65.1
Enrollment status, first term													
Full time	68.7	5.4	25.9	45.7	10.3	1.0	17.5	6.0	11.0	11.7	5.7	6.0	42.7
At least half, less than full time	84.9	2.8	12.3	28.3	10.9	0.6	13.2	1.8	1.8	22.8	17.0	5.8	48.9
Less than half time	87.7	6.6	5.8	27.1	16.9	0.0	6.7	0.6	2.2	13.0	9.3	3.7	59.9
First transfer													
Did not transfer	78.7	7.7	13.5	23.1	8.9	([4])	14.1	([4])	([4])	10.1	10.1	([4])	66.8
Transferred to less-than-4-year	93.8	2.2	4.0	47.2	32.8	0.0	13.8	0.0	0.6	16.3	16.3	0.0	36.6
Transferred to 4-year	61.2	0.7	38.1	59.5	0.6	2.8	12.3	18.3	25.6	25.9	2.8	23.2	14.5
Average number of months enrolled at first institution	14.2	15.5	28.3	20.4	11.9	([5])	25.6	26.2	22.5	24.8	27.3	20.2	11.4

[1] For students who earned more than one credential at the first institution, the first credential they earned.

[2] Highest degree attained at any institution. Students who have attained may also be enrolled.

[3] Almost all of those enrolled at less-than-4-year institutions were enrolled at 2-year institutions.

[4] Not applicable.

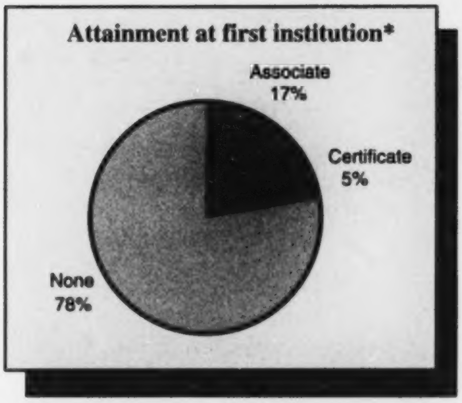
[5] Too few sample observations for a reliable estimate.

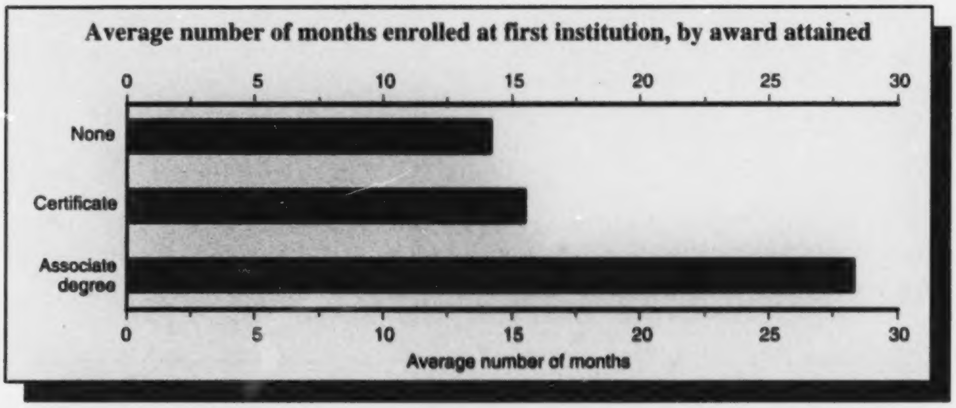
NOTE: Details may not add to 100.0 due to rounding.

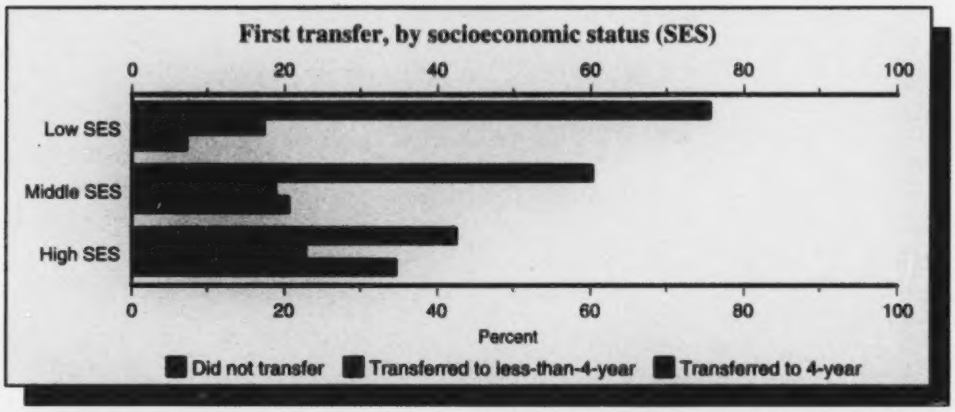
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Attainment and enrollment among 1989–90 community college entrants

Percentage distribution of attainment outcomes







* For students who earned more than one credential at the first institution, the first credential they earned.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Persistence toward a bachelor's degree

Personal, financial, and academic circumstances often interfere with students' completion of bachelor's degree programs. Understanding the relationship between these circumstances and students' paths through postsecondary education is essential to help them succeed.

- Among beginning students seeking bachelor's degrees in 1989–90, three-quarters of those who began in 4-year institutions and more than half of those who began in 2-year institutions reported completing some degree or were still working toward a bachelor's degree 5 years later. Students who began in 4-year institutions were much more likely to report completing a bachelor's degree in 5 years than those who began in 2-year institutions (57 versus 8 percent).

- Students who entered postsecondary education at age 18 or younger were more than twice as likely (51 versus 19 percent) as those who entered between ages 20 and 29 to report completing a bachelor's degree within 5 years, and five times more likely than students who entered at age 30 or later.

- Half of bachelor's degree seekers (52 percent) who first enrolled on a full-time basis reported having completed that degree within 5 years, compared to 15 percent or less of those who first enrolled less than full time.

- As socioeconomic status (SES) and parents' educational attainment levels increased, so did students' likelihood of completing a bachelor's degree, or any degree, within 5 years. Bachelor's degree seekers with lower SES or whose parents had less education were more likely to report completing no degree (see supplemental table 12-1).

Percentage distribution of 1989–90 beginning postsecondary students seeking bachelor's degrees, by persistence toward and completion of bachelor's and other degrees as of spring 1994 and selected characteristics

	Completed a degree					No degree, no longer enrolled toward a bachelor's						
	Highest degree completed[1]			Total any degree	Still enrolled for bachelor's[2]	Total no degree	Number of months enrolled[3]					
Selected characteristics	Bachelor's	Associate	Certificate				Less than 9	9–18	19–27	28–36	37–45	More than 45
Total	**45.8**	**5.1**	**3.3**	**54.3**	**17.5**	**28.3**	**2.8**	**8.1**	**5.7**	**5.6**	**3.8**	**2.3**
Level of first institution												
4-year	57.1	2.5	2.1	61.7	15.3	23.1	1.9	5.5	5.3	4.9	3.3	2.1
2-year	7.9	13.9	7.2	29.0	25.3	45.8	5.4	16.8	7.0	8.2	5.3	3.0
Age as of 12/31/89												
18 years or younger	51.4	4.9	2.9	59.2	16.4	24.5	1.5	5.2	5.9	5.7	3.5	2.7
19 years	38.3	4.2	3.4	45.8	21.1	33.0	4.0	13.4	4.4	6.0	3.4	1.6
20–29 years	19.0	9.4	7.9	36.3	19.6	44.1	8.2	17.9	6.5	2.8	7.7	1.0
30 years or older	9.8	6.0	3.3	19.1	17.3	63.5	19.4	28.9	4.8	9.9	0.5	0.0
Enrollment status, first term												
Full time	51.7	4.1	2.5	58.3	16.7	25.0	1.7	6.6	5.3	5.6	3.5	2.3
At least half, less than full time	14.5	11.5	6.1	32.1	24.5	43.4	5.9	18.9	5.6	2.5	7.8	2.5
Less than half time	10.5	4.9	11.4	26.8	26.8	46.4	17.3	8.0	9.1	8.0	0.3	3.7
Received aid in 1989–90												
No	36.9	7.0	4.5	48.4	21.0	30.7	3.0	8.7	6.2	6.3	3.9	2.7
Yes	55.1	3.2	2.2	60.4	13.8	25.8	2.7	7.5	5.2	4.9	3.7	1.9

[1] Includes only students who were no longer working toward a bachelor's degree, but who had completed another type of degree.

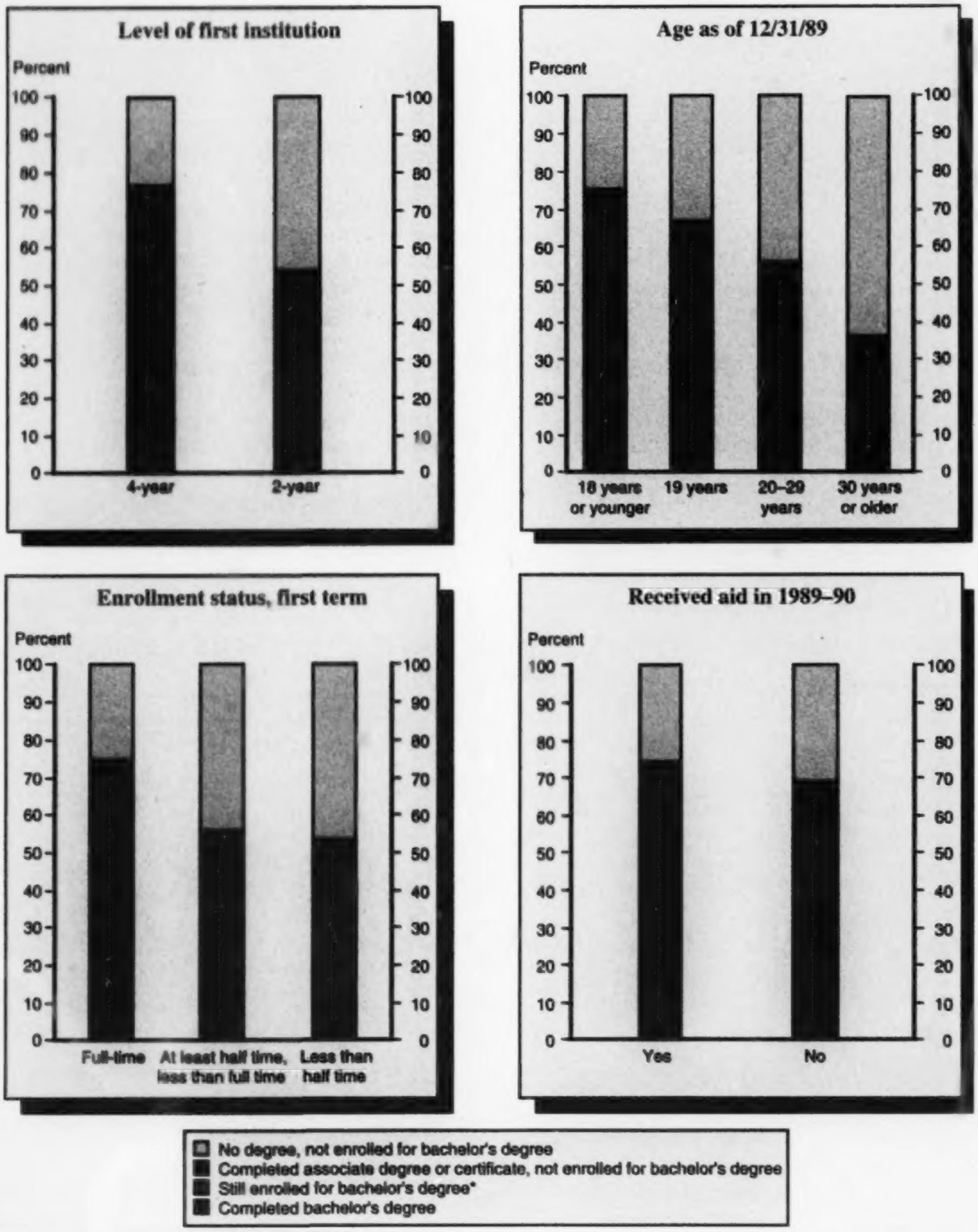
[2] Includes students who had completed another type of degree or award (associate degree, 11.8 percent; certificate, 2.7 percent), but who are still working toward a bachelor's degree.

[3] Enrollment can be full time or part time. Includes students who are still enrolled but who are no longer working toward a bachelor's degree.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Percentage distribution of 1989–90 beginning postsecondary students seeking bachelor's degrees, by persistence toward and completion of bachelor's and other degrees as of spring 1994



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* Includes students who had completed another type of degree or award (associate degree, 11.8 percent; certificate, 2.7 percent), but who are still working toward a bachelor's degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Participation in adult education

In an age of rapid technological and economic change, lifelong learning is essential, both for individuals and for society as a whole. Adult education provides an avenue for acquiring new knowledge and upgrading workers' skills. Differences in participation rates among various groups may indicate the degree of access to or the rewards of participation for these individuals.

- Forty percent of adults participated in adult education activities in 1995, up from 32 percent in 1991. Of those adults who participated in 1995, about half (21 percent) took work-related courses, half (20 percent) took personal development courses, and 6 percent took part-time courses related to a diploma, degree, or certification.

- In both 1991 and 1995, adults with more education generally were more likely to participate in adult education activities than those with less education. In 1995, almost 6 in 10 adults who had a bachelor's degree or higher participated in adult education, compared to 3 in 10 adults who had a high school diploma or GED.

- Employed adults were more likely to participate in adult education than those without jobs. In 1995, among those who were employed, participation rates of females were 9 percentage points higher than those of their male counterparts. Moreover, employed females were more likely than employed males to take work-related or personal development courses (see supplemental table 13-1).

- Among those who participated in work-related courses, the majority (60 percent) took courses provided by business or professional associations. In 1995, about 20 percent took work-related courses provided by colleges, and 17 percent took work-related courses provided by government agencies in 1995 (see supplemental table 13-2).

Adult education[1] participation rates in the past 12 months, by type of adult education activity, educational attainment, and labor force status: 1991 and 1995

		1995				
			Type of adult education activity			
Educational attainment and labor force status	1991 total	Total[2]	Basic skills[3]	Credential[2]	Work-related	Personal development
Total	**31.6**	**40.2**	**1.2**	**6.1**	**20.9**	**19.9**
Educational attainment						
Grades 9–12[4]	14.3	22.9	5.6	1.6	6.9	10.4
High school diploma or GED	22.5	30.9	0.8	3.5	14.2	15.7
Vocational/technical school	31.7	41.9	0.6	5.4	21.9	21.1
Some college	39.4	49.3	0.5	12.1	22.3	25.3
Associate degree	49.1	56.1	0.4	10.9	32.1	27.4
Bachelor's degree or higher	52.2	58.2	—	7.7	37.9	27.9
Labor force status						
Employed	40.8	50.7	1.1	8.2	31.1	22.0
Unemployed	27.5	36.6	5.0	5.5	11.1	17.4
Not in labor force	14.5	21.3	0.9	2.2	3.4	16.2

— Not applicable.

[1] Adult education includes educational programs at all levels. See the glossary for the definition of adult education.

[2] The participation rate of adults age 17 or older was determined by their involvement in one or more of six types of adult education activities in the 12 months prior to the interview; therefore, percentages may not add to totals because people participated in more than one type of activity (9 percent in 1995). Adults who participated in apprenticeship programs and English as a Second Language programs were included in the total, but are not shown separately. Adults who reported that they had participated only as full-time credential seekers were not included in the calculation of the participation rates.

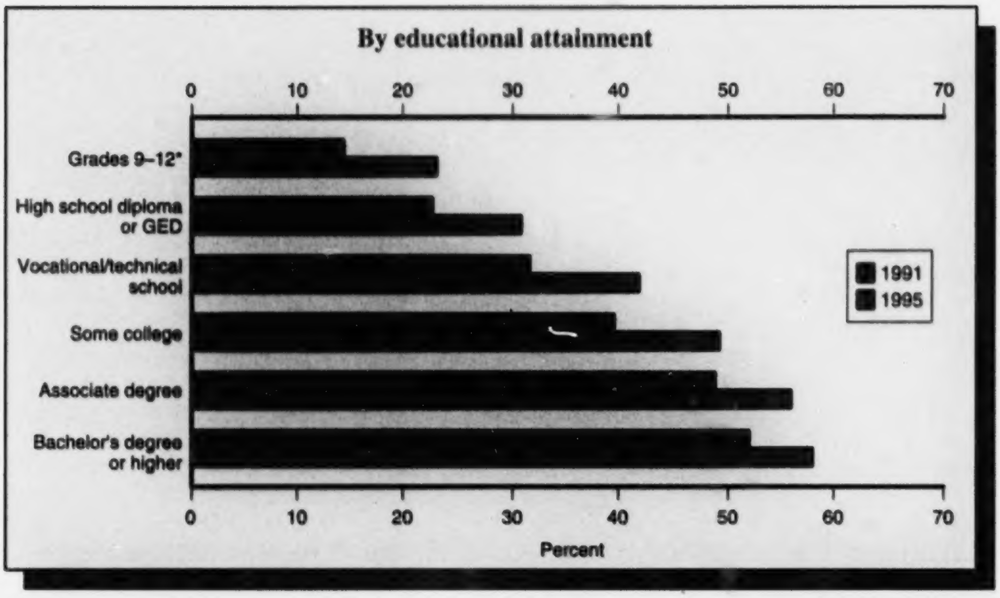
[3] Only adults who had not received a high school diploma or its equivalent, who had received a high school diploma in the past 12 months, or who had received a high school diploma in a foreign country were asked about their participation in the basic education/General Educational Development (GED) activities.

[4] In 1995, includes adults whose highest education level was grades 9–12 who had not received a high school diploma; in 1991, includes only adults whose highest education level was grades 9–11.

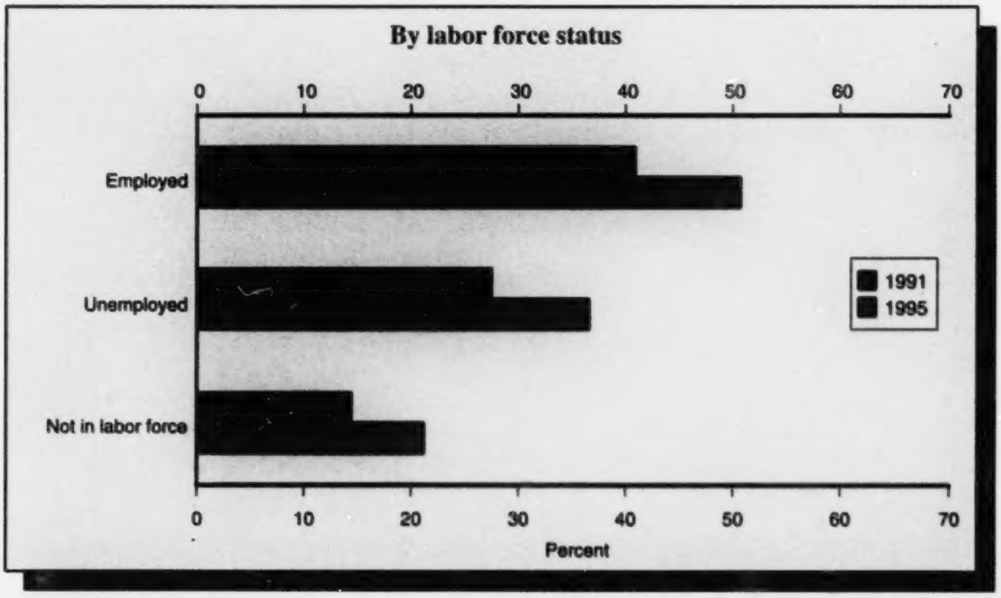
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 and 1995 (Adult Education Component).

Adult education participation rates in the past 12 months: 1991 and 1995

By educational attainment



By labor force status



* In 1995, includes adults whose highest education level was grades 9–12 who had not received a high school diploma; in 1991, includes only adults whose highest education level was grades 9–11.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 and 1995 (Adult Education Component).

Net price of college attendance

Price may affect a student's access to a college education. The net price of college attendance is total price minus total aid—tuition, fees, and living expenses minus grants, loans, and work study. Net price minus the expected family contribution (EFC) is the remaining expense (unmet need) that must be paid by student employment or other means. Total aid as a percentage of total price is one measure of affordability, and indicates the fraction of the cost met by financial aid.

- Financial aid accounted for 33 percent of the total amount paid by dependent full-time, full-year undergraduates to attend public 4-year institutions, 45 percent of the amount to attend private, not-for-profit 4-year institutions, and 17 percent of the amount to attend public 2-year institutions. This ratio varied according to differences in family income. At public 4-year institutions, it was 54 percent for students from low income families, compared to 17 percent for students from high income families.

- Average unmet need (total price minus EFC minus financial aid) was about $6,200 for full-time dependent undergraduates from low income families attending private, not-for-profit 4-year institutions. The average amount of unmet need was just over $3,000 for students at the same type of institution from high income families.

- The average total price to attend a public 4-year institution full time, full year was about $10,800. The EFC is the amount the federal government estimates students and their families should contribute to financing this cost of attendance. Families with incomes of $70,000–79,999 had an average EFC of $12,300, enough to cover the price to attend a public 4-year institution without aid. Families with incomes of between $100,000 and $124,000 had an average EFC about equal to the price to attend a private, not-for-profit 4-year institution ($20,000) without aid. Families with incomes of $50,000–59,999 had an average EFC of $7,400, enough to cover the price to attend a public 2-year institution.

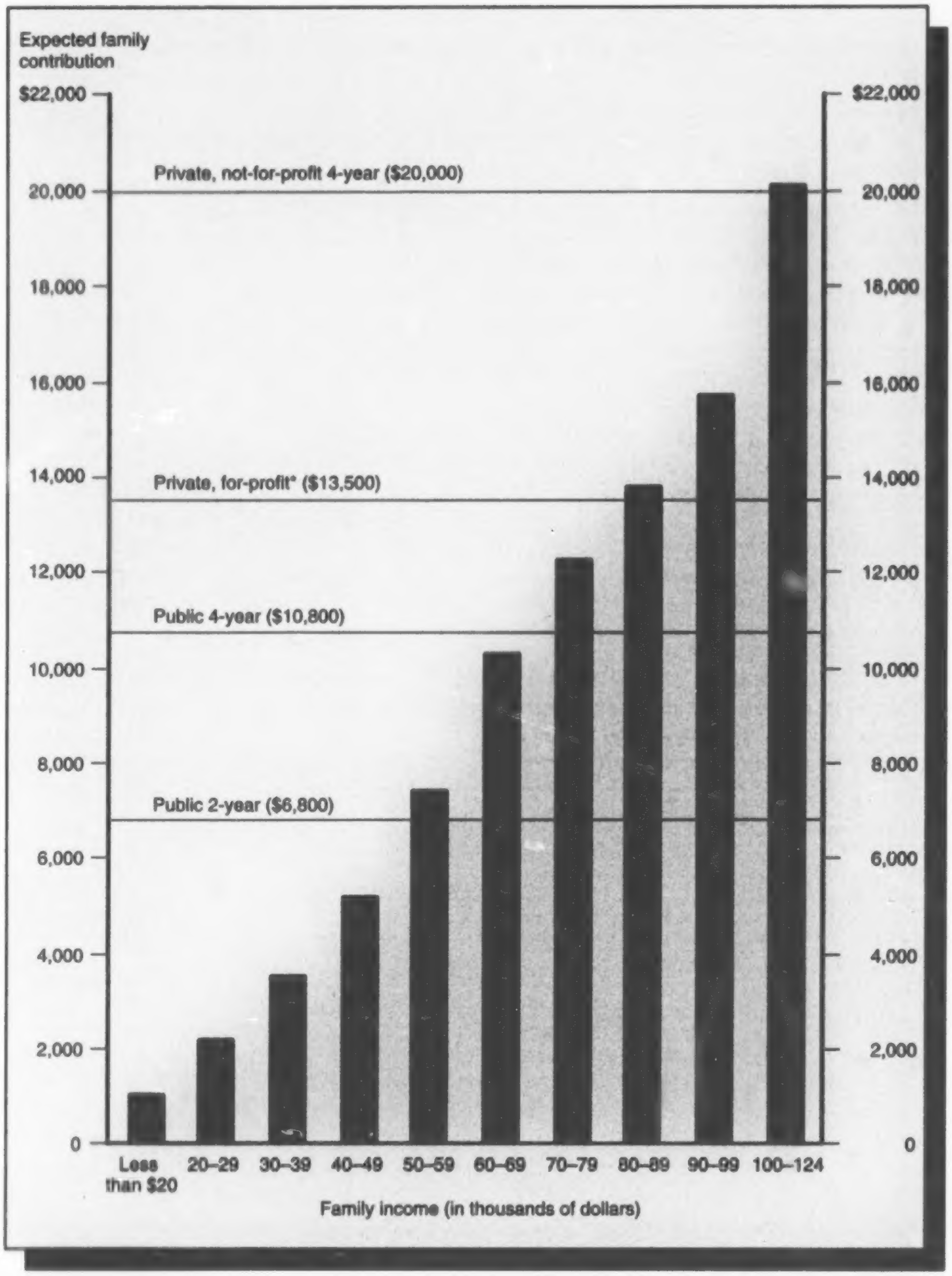
Price of college attendance and student financial aid for dependent full-time, full-year undergraduates, by control and type of institution and family income: Academic year 1995–96

Control and type of institution and family income	Average tuition and fees	Average total price	Average grants	Average total aid	Average net price	Average unmet need	Ratio of total aid to total price
Total	**$6,067**	**$12,603**	**$2,222**	**$4,529**	**$8,070**	**$2,712**	**33.5**
Public 4-year	3,918	10,759	1,394	3,497	7,265	2,045	33.0
Low income	3,586	10,219	3,195	5,507	4,707	3,809	54.3
Lower middle	3,649	10,396	1,540	4,241	6,155	3,036	40.6
Upper middle	3,767	10,555	690	2,727	7,828	1,455	25.6
High income	4,541	11,674	494	1,999	9,687	373	16.7
Private, not-for-profit 4-year	13,250	20,003	4,934	8,797	11,207	4,469	44.8
Low income	11,709	18,155	6,990	10,917	7,239	6,184	59.9
Lower middle	12,641	19,156	6,779	11,346	7,810	4,863	57.9
Upper middle	13,316	19,999	4,692	9,105	10,899	4,493	45.7
High income	14,661	21,832	2,472	5,417	16,416	3,019	25.2
Public 2-year	1,316	6,761	694	1,044	5,718	1,778	17.0
Low income	1,202	6,369	1,750	2,198	4,171	3,231	37.7
Lower middle	1,315	6,883	556	924	5,959	2,654	14.3
Upper middle	1,416	6,954	188	574	6,380	595	8.7
High income	1,331	6,849	141	271	6,578	127	3.9

NOTE: Total price includes budgeted allowances for student living expenses; total aid includes grants, loans, and work study; net price is total price minus total aid; unmet need is total price minus total aid minus the expected family contribution. Family income categories are income quartiles for dependent students. Only students who attended one institution are included. Averages include zero values. See the supplemental note to this indicator for further discussion.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Average expected family contribution (EFC) for dependent students, by family income: Academic year 1995–96



* Includes 4-year and less-than-4-year institutions.

NOTE: The horizontal lines on the figure represent the average student budgets for full-time, full-year students at the indicated type of institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Trends in student borrowing

The proportion of student financial aid that consists of loans has increased over time. Federal loan programs are the major source of student financial aid. While loans allow some students to attend a postsecondary institution who otherwise could not, many are concerned that some students are increasingly burdened with high debts after graduation. The cumulative amount of loans incurred while students progress through their undergraduate studies is one measure of burden.

- The percentage of undergraduate students attending 4-year institutions who borrowed from federal loan programs during the academic year increased by about 11 percentage points at public 4-year and by 10 percentage points at private, not-for-profit 4-year institutions between 1992–93 and 1995–96. The average amount borrowed in each year also increased, from $3,000 to $4,200 at public 4-year institutions, and from $3,600 to $4,100 at private, not-for-profit 4-year institutions.
- The percentage of dependent undergraduates with family incomes of $50,000 or more who ever borrowed from federal loan programs increased between 1992–93 and 1995–96 at both public and private, not-for-profit 4-year institutions. For example, in 1992–93, 21 percent of dependent undergraduates at public 4-year institutions from families making between $50,000 and $59,999 had ever borrowed (see supplemental table 15-1). By 1995–96, 44 percent of undergraduates from families in that income range had borrowed.
- In both years, differences in attendance costs between public and private, not-for-profit 4-year institutions were reflected in the higher amounts borrowed by undergraduates attending private, not-for-profit institutions. At each class level, undergraduate students at private institutions borrowed more than those at public institutions.

Percentage of undergraduates who borrowed, and the average amount and average cumulative amount borrowed from federal loan programs, by control and type of institution and class level: Academic years 1992–93 and 1995–96

	1992–93				1995–96			
	Current Year				Current Year			
Control and type of institution and class level[1]	Percent who borrowed	Average amount borrowed	Percent who ever borrowed	Average cumulative amount borrowed	Percent who borrowed	Average amount borrowed	Percent who ever borrowed	Average cumulative amount borrowed
Total	**19.2**	**$3,186**	**30.6**	**$5,439**	**25.3**	**$4,041**	**37.7**	**$7,047**
Public 4-year	24.5	3,007	36.0	5,915	35.4	4,130	47.2	7,904
Freshman	22.4	2,472	30.2	3,281	35.0	2,777	41.1	3,547
Sophomore	24.3	2,676	34.4	4,493	32.9	3,538	44.0	5,674
Junior	26.6	3,196	37.3	6,093	37.9	4,569	49.5	8,244
Senior[2]	25.7	3,385	40.9	7,793	36.8	4,970	52.1	11,038
Private, not-for-profit 4-year	34.6	3,591	44.9	6,984	44.3	4,499	53.7	8,682
Freshman	33.9	3,041	41.5	3,566	43.5	3,237	49.5	4,017
Sophomore	33.8	3,083	42.1	5,611	45.8	3,970	52.6	6,945
Junior	37.6	3,915	47.5	7,722	48.5	5,287	58.0	9,880
Senior[2]	35.4	4,193	48.7	10,023	42.9	5,564	56.4	13,159
Public 2-year	6.0	2,542	18.2	3,987	6.0	2,840	20.5	4,605
First year	5.2	2,346	16.3	3,510	5.1	2,546	17.8	4,188
Second year	6.9	2,768	19.9	3,943	8.6	3,175	26.2	4,987

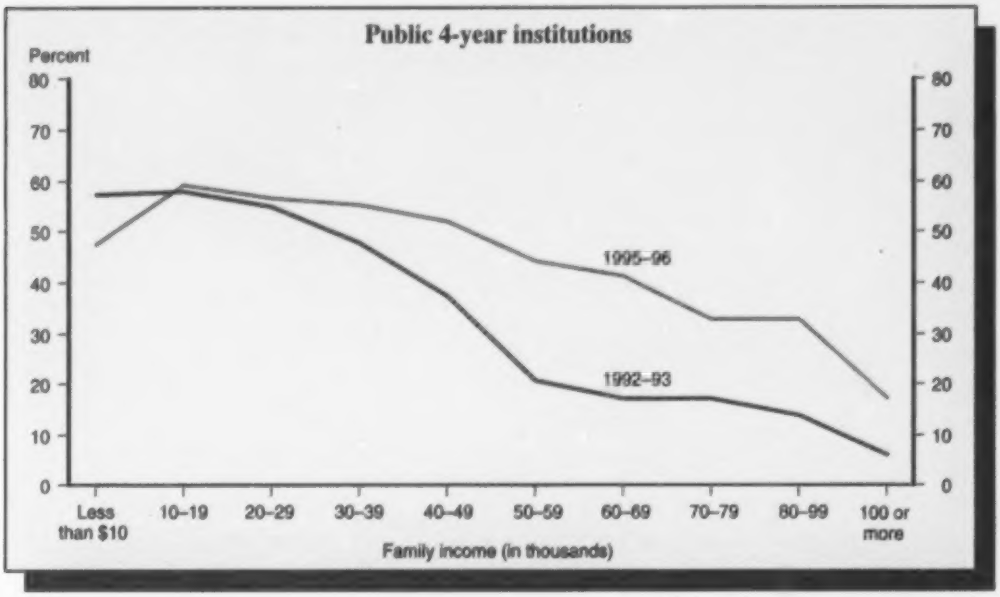
[1] Class level is based on credit accumulation. Thus, students may borrow more than once at each level if they take more than one year to earn the required number of credits.

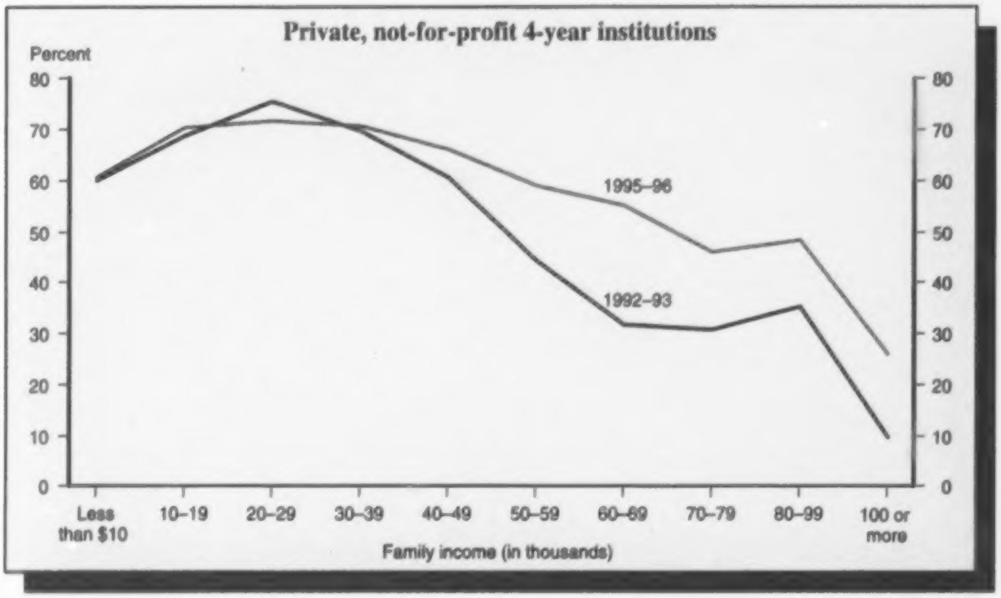
[2] Includes 4th- and 5th-year seniors.

NOTE: Students attending more than one institution are excluded. Percentages and amounts for federal loan programs exclude Parent Loans to Undergraduate Students (PLUS).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 National Postsecondary Student Aid Study (NPSAS:93), and 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Percentage of dependent undergraduates who ever borrowed from federal loan programs, by family income: Academic years 1992–93 and 1995–96





NOTE: Percentages and amounts for federal loan programs exclude Parent Loans to Undergraduate Students (PLUS).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 National Postsecondary Student Aid Study (NPSAS:93), and 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Achievement, Attainment, and Curriculum

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Achievement, Attainment, and Curriculum

Indicators of what students have learned in school are perhaps the most important measures of the outcomes of education. Although performance on examinations is one measure of what students have learned in school, examinations do not measure the array of skills and experiences that formal education provides. Educational attainment (e.g., finishing high school or college) is not only an indirect measure of how much subject matter students may have learned, but also of how much students potentially have grown in learning civic responsibilities, social skills, work ethics, and life skills. Furthermore, information about courses taken in high school and fields of study in college are additional indirect indicators of the content of students' knowledge.

Achievement

The National Assessment of Educational Progress (NAEP) has assessed students' knowledge in reading, writing, science, mathematics, and other subjects for nearly 30 years. Average reading proficiency increased slightly for 13-year-olds and remained about the same for 17-year-olds between 1971 and 1996; for 9-year-olds, reading scores increased between 1971 and 1980, declined between 1980 and 1990, and remained stable between 1990 and 1996 (*Indicator 16*). Average writing scale scores of 8th-graders declined between 1984 and 1990, but returned to their original level by 1996. Eleventh-grade scores were slightly lower in 1996 than in 1984 (*Indicator 17*). NAEP shows that for all 9-, 13-, and 17-year-olds, average mathematics proficiency was higher in 1996 than in 1978, and average science proficiency was higher in 1996 than in 1982 (*Indicators 18* and *19*).

NAEP further shows that some of the large gaps in achievement between whites and minorities have narrowed somewhat over the past two decades. For example, in 1973, average mathematics proficiency scores for 17-year-old blacks and Hispanics were well below those for 17-year-old whites (40 and 33 scale points, respectively). Although there was still a gap in 1996, the mathematics proficiency scores for 17-year-old white students increased 3 scale points between 1973 and 1996, while the scores for 17-year-old blacks and Hispanics increased 16 and 15 scale points, respectively (*Indicator 18*).

International comparisons

International comparisons of student achievement are available in mathematics and science. Generally, U.S. 4th-graders compare favorably to their counterparts in other countries in mathematics and science achievement, while U.S. 8th- and 12th-graders do not fare as well as their peers in these subjects. In 1995, 4th-graders from the United States scored above the international average in both mathematics and science. In science, only students in Korea outperformed U.S. 4th-graders, while in mathematics, U.S. 4th-graders outperformed their peers in 12 countries and scored below their peers in 7 countries. In contrast, U.S. 8th-graders scored above the international average in both mathematics and science, but were outperformed by students in 9 countries in science and 20 countries in mathematics. U.S. 12th-graders scored below the international average in both mathematics and science assessments (*Indicator 20*).

Adult literacy

Adult literacy was assessed across a total of 12 countries in 1994 and 1996. Relative to most of these other countries, the United States had a large concentration (one-fifth) of adults who scored at the highest literacy levels across the prose, document, and quantitative literacy domains. Out of the 11 other countries that participated in the International Adult Literacy Survey, only Sweden had a greater percentage of adults who scored at the highest levels of literacy in the three domains, with the exception of Canada, which had a greater proportion of adults who scored at the highest level on the document scale. While the United States has a large percentage of adults scoring at the highest levels of literacy, it also has a large percentage of adults scoring at the lowest levels of literacy throughout all three domains. Across all countries, adults with more education had higher literacy scores than adults with less education (*Indicator 21*).

Attainment

High school completion

In 1997, 87 percent of all 25- to 29-year-olds had a high school diploma or an equivalency certificate, up from 78 percent in 1971. However, the completion rate varied among racial/ethnic groups. In 1997, 93 percent of whites had a high school diploma or the equivalent, compared to 87 percent of blacks and 62 percent of Hispanics. The educational attainment of blacks ages 25–29 increased across all education levels between 1971 and 1997. For example, the percentage of those who completed high school rose from 59 to 87 percent for blacks during this time period. However, the gap in educational attainment between blacks and whites decreased only for those who completed high school (*Indicator 22*).

College attainment

In 1997, among 25- to 29-year-olds who had completed high school, 65 percent had completed at least some college, and 32 percent had earned a bachelor's degree or more. The percentages of Hispanic and black high school graduates with some college or a bachelor's degree or higher were similar (*Indicator 22*). In 1997, females ages 25–29 were more likely than their male peers to have completed some college or a bachelor's degree or higher (tables 22-2 and 22-3).

International comparisons

The United States compares favorably to other large industrialized countries in terms of completing secondary and higher education. For example, the United States has a similar or higher percentage of 25- to 64-year-olds who have completed secondary or higher education, compared to that of their counterparts in Japan, Germany, the United Kingdom, France, and Canada. However, with respect to young adults ages 25–34, U.S. completion rates in secondary education were similar to those in other nations (*Indicator 23*).

Curriculum

Secondary education

The courses students take in high school and college are an indirect indication of the content of students' knowledge. Between the 1987–88 and 1993–94 school years, the percentage of public school districts with graduation requirements that met or exceeded the National Commission on Excellence in Education recommendations in the four core subject areas—4 units in English, and 3 each in science, social studies, and mathematics—increased from 12 to 20 percent (*Indicator 26*). Additionally, 1994 high school graduates took more mathematics courses at the Algebra I level or higher and more science classes at the biology level or higher than did 1982 graduates (Indicator 24, *Condition 1997*).

In addition to meeting stricter graduation requirements, students may acquire college credit for their knowledge of college-level subjects though the Advanced Placement (AP) program. Measuring the number of students who participated in AP examinations each year shows the level of importance students, schools, and colleges place on the AP program. Between 1984 and 1996, the number of students taking AP examinations increased substantially, rising from 50 to 131 students per 1,000 12th-graders. Overall, more females than males took the AP examinations in 1996; however, males were more likely to take examinations in calculus, computer science, and science subjects (*Indicator 27*).

In some schools or districts, community service is included as part of the curriculum, and it is also how some students choose to spend their time outside of school. In 1996, about half (49 percent) of students in grades 6–12 participated in community service activities (*Indicator 25*). Students who were involved in student government, participated in other school activities, or who worked for pay were more likely to participate in community service than students who were not involved in these types of activities (table 25-1).

Postsecondary education

The field of study students choose to pursue at the postsecondary level affects both the demand for courses and faculty and the supply of new graduates in different fields. Business management degrees, as well as degrees in the humanities and social and behavioral sciences, are the most popular fields of study, having constituted half or more of all degrees conferred since 1971 (*Indicator 29*).

Remedial courses are often needed in higher education to bridge the gap between high school and college curricula. In 1995, 78 percent of higher education institutions offered remedial courses in reading, writing, or mathematics. Three out of ten college freshmen enrolled in a remedial course in both 1989 and 1995. More freshmen took remedial mathematics in 1995 than either remedial reading or remedial writing (*Indicator 28*).

Trends in the reading proficiency of 9-, 13-, and 17-year-olds

Students' ability to read is essential to their educational progress. If students fall behind in reading proficiency, they may find it difficult to benefit from other aspects of the curriculum. In the future, poor readers may also find it difficult to participate effectively in a society requiring increasingly sophisticated job skills.

- Overall, reading proficiency for 9-year-olds improved between 1971 and 1980, declined between 1980 and 1990, and was stable between 1990 and 1996. Little change occurred from 1971 to 1996 at ages 13 and 17, although scores for 17-year-olds increased slightly between 1971 and 1984.
- Females continued to outscore males in reading proficiency across all age groups.
- For all three age levels, average scores for black students rose by about 20 or more scale points between 1971 and 1988, and in 1996, the average scores were higher than those in 1971. The gap between the scores of white and black students consequently decreased at ages 9 and 17 between 1971 and 1996.
- In 1996, there was an average proficiency difference of 47 scale points between 9- and 13-year-olds, and a difference of 28 scale points between 13- and 17-year-olds. This pattern holds true for both genders and all racial/ethnic groups.

Average reading proficiency (scale scores), by sex and age: 1971–96

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	[1]208	[1]255	285	[1]201	250	279	[1]214	[1]261	291
1975	210	256	286	204	250	280	216	262	[1]291
1980	[2]215	259	286	[2]210	[2]254	282	[2]220	263	[1]289
1984	[2]211	257	[2]289	[2]208	[2]253	284	214	262	294
1988	[2]212	258	[2]290	[2]208	252	[2]286	216	263	294
1990	209	257	[2]290	204	251	284	215	263	[2]297
1992	211	[2]260	[2]290	[2]206	254	[2]284	215	[2]265	296
1994	[2]211	258	288	[2]207	251	282	215	[2]266	295
1996	[2]212	[2]259	287	[2]207	253	280	[2]218	[2]265	294

Average reading proficiency (scale scores), by race/ethnicity and age: 1971–96

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	[1]214	[1]261	291	[1]170	[1]222	[1]239	—	—	—
1975	217	262	293	[2]181	[1]226	[1]241	[1]183	232	252
1980	[1,2]221	[2]264	293	[2]189	[2]233	[1]243	190	237	261
1984	[2]218	263	[2]295	[2]186	[2]236	[2]264	187	240	[2]268
1988	218	261	295	[2]189	[2]243	[2]274	[2]194	240	[2]271
1990	217	262	[2]297	[2]182	[2]242	[2]267	189	238	[2]275
1992	[2]218	[2]266	[2]297	[2]185	[2]238	[2]261	192	239	[2]271
1994	[2]218	[2]265	296	[2]185	[2]234	[2]266	186	235	263
1996	[2]220	[2]267	294	[2]190	[2]236	[2]265	[2]194	240	265

— Not available.

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1971 for whites and blacks and from 1975 for Hispanics.

NOTE: See the supplemental note to *Indicator 16* for further discussion of the NAEP assessments. The reading proficiency scale has a range from 0 to 500. (See supplemental table 16-1 for further explanations of levels.)

Level 150: Simple, discrete reading tasks

Level 200: Partial skills and understanding

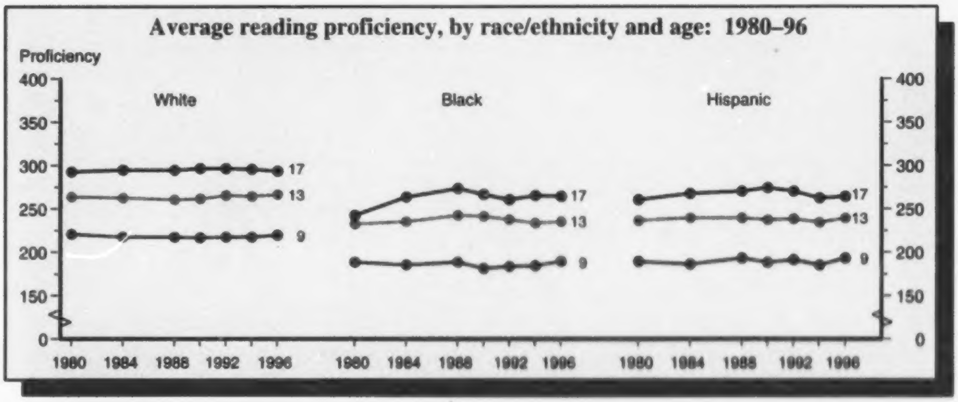
Level 250: Interrelates ideas and makes generalizations

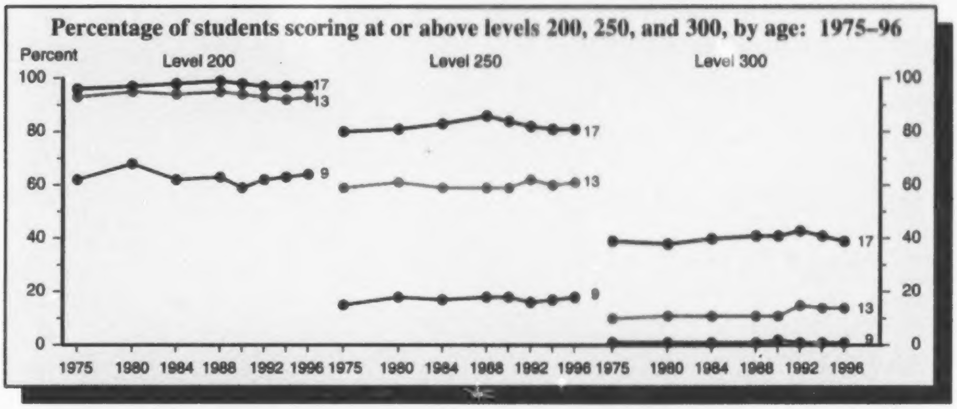
Level 300: Understands complicated information

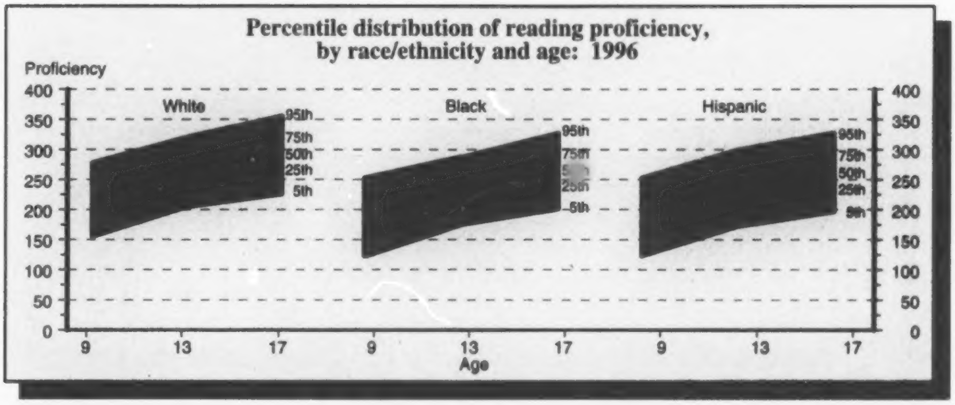
Level 350: Learns from specialized reading materials

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Average reading proficiency (scale score)


Average reading proficiency, by race/ethnicity and age: 1980–96


Percentage of students scoring at or above levels 200, 250, and 300, by age: 1975–96


Percentile distribution of reading proficiency, by race/ethnicity and age: 1996

NOTE: The reading proficiency scale has a range from 0 to 500. (See supplemental table 16-1 for further explanations of levels.)

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Trends in writing proficiency in grades 4, 8, and 11

Effective writing skills are important in all stages of life from early education to future employment. In the business world, as well as in school, students often must convey complex ideas and information in a clear, succinct manner. Inadequate writing skills, therefore, could inhibit achievement across the curriculum and in future careers, while proficient writing skills help students convey ideas, deliver instructions, analyze information, and motivate others.

- Average writing proficiency remained relatively stable for 4th-grade students between 1984 and 1996. Eighth-grade writing scale scores declined between 1984 and 1990, but returned to about their original level by 1996. Eleventh-grade scores were slightly lower in 1996 than in 1984.

- Females have outscored males in writing proficiency at all grade levels since 1988.

- Scores for black and Hispanic students have remained relatively unchanged since 1984 at all grade levels. Although scores dropped slightly for white 11th-graders between 1984 and 1996, the average scores for white students were higher than those for black and Hispanic students at all grade levels.

- In 1996, 83 percent of 11th-graders could write focused, clear responses (level 250); 31 percent were generally able to write complete, sufficient responses (level 300); and 2 percent provided effective, coherent responses (level 350) (see supplemental table 17-2).

- In 1996, 4th-grade scores ranged from 142 at the 5th percentile to 268 at the 95th percentile. At the 8th-grade level, the median score (50th percentile) was 264, indicating that the top 5 percent of 4th-graders achieved approximately the same proficiency as the average 8th-graders (see supplemental table 17-3).

Average writing proficiency (scale score), by sex and grade: 1984–96

	Total			Male			Female		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	204	267	[1]290	201	[1]258	[1]281	208	276	299
1988	206	264	[1]291	199	254	[1]282	213	274	299
1990	202	[1,2]257	287	195	[1,2]246	276	209	[1,2]268	298
1992	207	[1,2]274	287	198	[2]264	279	216	[1,2]285	296
1994	205	265	[2]285	196	254	[2]276	214	278	[2]293
1996	207	264	[2]283	200	[2]251	[2]275	214	276	[2]292

Average writing proficiency (scale score), by race/ethnicity and grade: 1984–96

	White			Black			Hispanic		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	211	272	[1]297	182	247	270	189	247	259
1988	215	269	[1]296	173	246	275	190	250	274
1990	211	[1,2]262	293	171	239	268	184	246	[2]277
1992	217	[1,2]279	294	175	[1]258	263	189	[1,2]265	274
1994	214	272	[2]291	173	245	267	189	252	271
1996	216	271	[2]289	182	242	267	191	246	269

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1984.

NOTE: See the supplemental note to *Indicator 16* for further discussion of the NAEP assessments. The writing proficiency scale has a range from 0 to 500. (See supplemental table 17-1 for detailed explanations of levels.)

Level 150: Disjointed, unclear writing

Level 200: Incomplete, vague writing

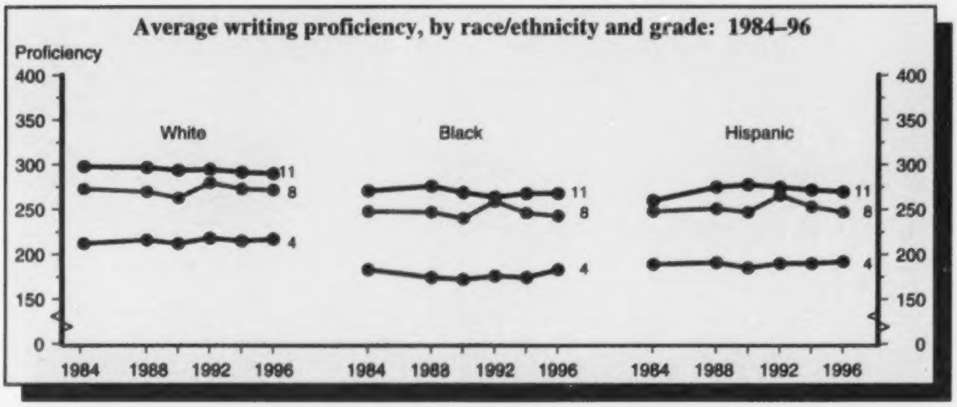
Level 250: Beginning focused, clear writing

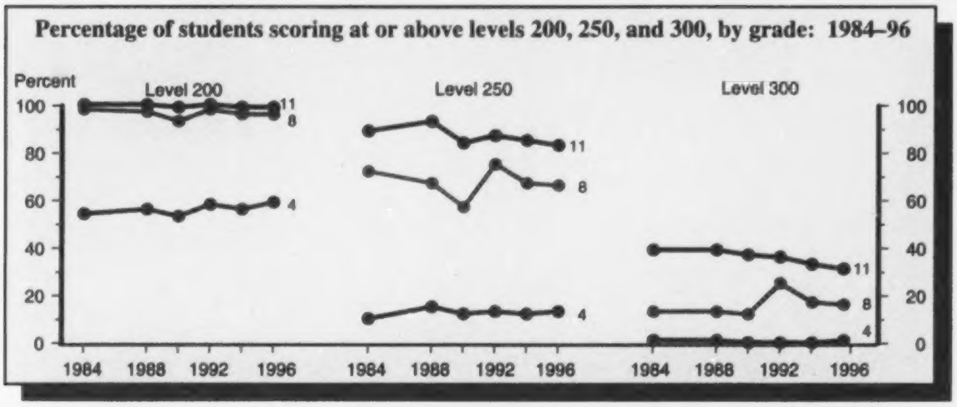
Level 300: Complete, sufficient writing

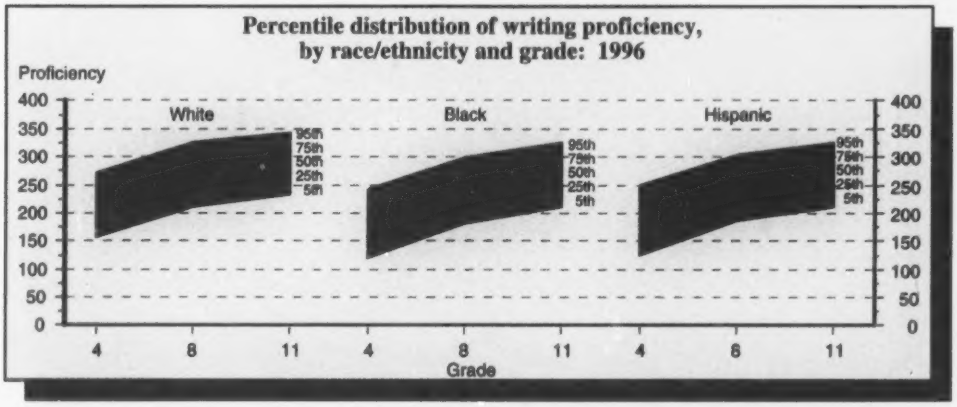
Level 350: Effective, coherent writing

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Average writing proficiency (scale score)


Average writing proficiency, by race/ethnicity and grade: 1984–96


Percentage of students scoring at or above levels 200, 250, and 300, by grade: 1984–96


Percentile distribution of writing proficiency, by race/ethnicity and grade: 1996

NOTE: The writing proficiency scale has a range from 0 to 500. (See supplemental table 17-1 for further explanations of levels.)

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Trends in the mathematics proficiency of 9-, 13-, and 17-year-olds

Proficiency in mathematics is an important outcome of education. The mathematics skills of the Nation's workers may be a crucial component of its economic competitiveness. In an increasingly technological world, knowledge of mathematics is critical for success in scientific and engineering occupations. It is also essential for those working in the growing number of diverse occupations that use computers as a foundation for their activities, such as graphic designers, librarians, and business managers.

- Average mathematics proficiency improved between 1978 and 1996 for all age groups, with 9-year-olds making the largest improvements. Another mathematics assessment, one that reflects recent curricular emphasis and mathematics standards developed by the National Council for Teachers of Mathematics, showed that scores for 4th-, 8th-, and 12th-graders increased between 1990 and 1996 (see supplemental table 18-2).

- Several states had significant increases in average mathematics scores between 1992 and 1996. Of the 38 jurisdictions in which 4th-graders participated, 15 states showed significant improvements in mathematics scores between 1992 and 1996. Of the 36 jurisdictions in which 8th-graders participated, 13 states showed significant improvements between 1992 and 1996 (see supplemental table 18-3). No state showed a significant decline at the 8th-grade level.

- Between 1978 and 1996, average scores for white students were higher than those for black and Hispanic students at all age levels. However, the scores of white 13- and 17-year-olds increased at a slower rate than the scores of their black and Hispanic peers, causing the gap in mathematics proficiency to decrease for these racial/ethnic groups over the last 20 years.

Average mathematics proficiency (scale score), by sex and age: 1973–96

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	[1]219	[1]266	304	[1]218	[1]265	309	[1]220	[1]267	301
1978	[1]219	[1]264	[1]300	[1]217	[1]264	[1,2]304	[1]220	[1]265	[1]297
1982	[1]219	[1]269	[1,2]298	[1]217	[1]269	[1,2]302	[1]221	[1]268	[1,2]296
1986	[1]222	[1]269	[1]302	[1,2]222	[1,2]270	305	[1]222	[1]268	[1]299
1990	[2]230	[1,2]270	305	[2]229	[1,2]271	306	[2]230	270	303
1992	[2]230	[2]273	307	[2]231	[2]274	309	[2]228	[2]272	[2]305
1994	[2]231	[2]274	306	[2]232	[2]276	309	[2]230	[2]273	304
1996	[2]231	[2]274	307	[2]233	[2]276	310	[2]229	[2]272	[2]305

Average mathematics proficiency (scale score), by race/ethnicity and age: 1973–96

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	[1]225	[1]274	310	[1]190	[1]228	[1]270	[1]202	[1]239	[1]277
1978	[1]224	[1]272	[1,2]306	[1]192	[1]230	[1]268	[1]203	[1]238	[1]276
1982	[1]224	[1]274	[1,2]304	[1]195	[1,2]240	[1]272	[1]204	[2]252	[1]277
1986	[1]227	[1]274	[1]308	[1,2]202	[2]249	[2]279	[1]205	[2]254	283
1990	[2]235	[1]276	310	[2]208	[2]249	[2]289	[2]214	[2]255	284
1992	[2]235	[2]279	312	[2]208	[2]250	[2]286	[2]212	[2]259	[2]292
1994	[2]237	[2]281	312	[2]212	[2]252	[2]286	[2]210	[2]256	[2]291
1996	[2]237	[2]281	313	[2]212	[2]252	[2]286	[2]215	[2]256	[2]292

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1973.

NOTE: See the supplemental note to *Indicator 16* for further discussion of the NAEP assessments. The mathematics proficiency scale has a range of 0 to 500. (See supplemental table 18-1 for further explanations of levels.)

Level 150: Simple arithmetic facts

Level 200: Beginning skills and understanding

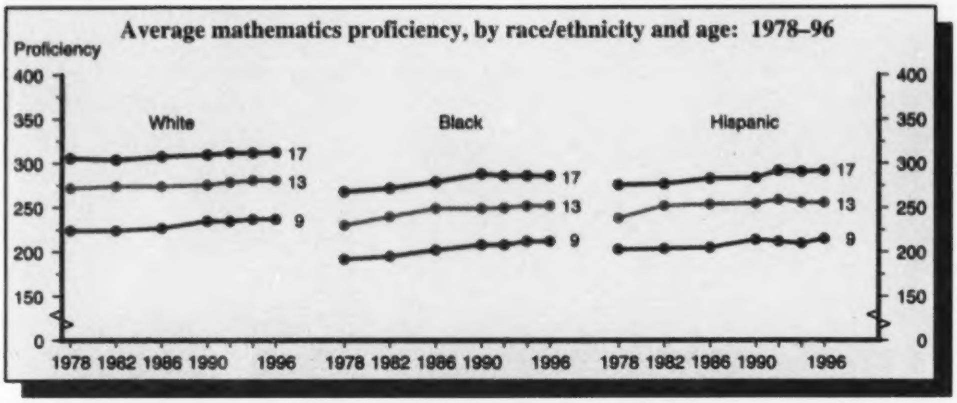
Level 250: Numerical operations and beginning problem solving

Level 300: Moderately complex procedures and reasoning

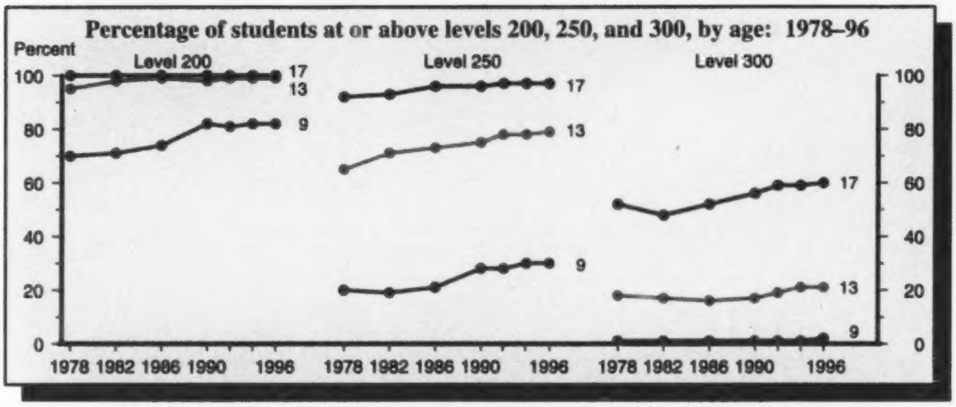
Level 350: Multi-step problem solving and algebra

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

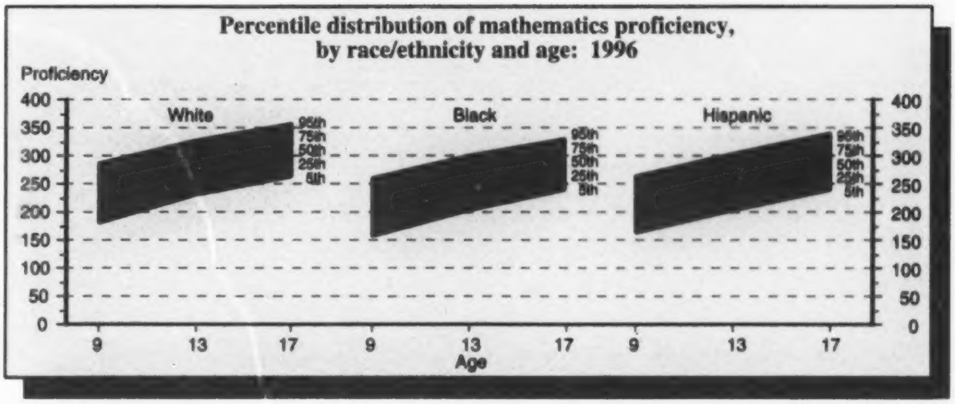
Average mathematics proficiency (scale score)



Average mathematics proficiency, by race/ethnicity and age: 1978–96



Percentage of students at or above levels 200, 250, and 300, by age: 1978–96



Percentile distribution of mathematics proficiency, by race/ethnicity and age: 1996

NOTE: The mathematics proficiency scale has a range from 0 to 500. (See supplemental table 18-1 for further explanations of levels.)

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Trends in the science proficiency of 9-, 13-, and 17-year-olds

Competence in science is an important outcome of education. The ability to apply scientific information, interpret data, and make inferences about scientific findings is required in a world that relies heavily on technological and scientific advances. Aside from workplace requirements, science proficiency is crucial in understanding environmental, medical, economic, and other issues that confront modern societies.

- Average science achievement scores rose for all three age levels between 1982 and 1996. However, when compared to scores from the 1970s, the 1996 average scores were higher at age 9, about the same at age 13, and lower at age 17.
- In 1996, the average science proficiency of blacks and Hispanics remained well below that of whites. However, the proficiency gap between whites and blacks at age 9 was smaller in 1996 than in 1970, and between whites and Hispanics at age 13, the gap was smaller in 1996 than in 1977.
- A higher percentage of 9- and 13-year-olds demonstrated general science skills by reaching level 250 in 1996 than in 1982. Additionally, more 17-year-olds reached levels 300 and 350 in 1996, exhibiting detailed knowledge and analytical understanding of scientific principles and the ability to integrate specialized scientific information (see supplemental table 19-2).
- There is much variation in science proficiency scores within age groups. For example, in 1996, the proficiency of white 9-year-olds varied by 131 scale points, from the 5th percentile to the 95th percentile. By comparison, the difference in the median proficiency of white 9- and 17-year-olds was 69 scale points (see supplemental table 19-3).

Average science proficiency (scale score), by sex and age: 1970–96

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	[1]225	255	[1]305	228	257	[1]314	[1]223	253	[1]297
1973	220	250	296	223	252	304	218	247	288
1977	[1,2]220	[1,2]247	[2]290	[1,2]222	[1,2]251	[2]297	[1,2]218	[1,2]244	[1,2]282
1982	[1]221	[1,2]250	[1,2]283	[1,2]221	256	[1,2]292	[1]221	[1,2]245	[1,2]275
1986	[1]224	[1]251	[1,2]289	[1]227	256	[2]295	[1]221	[1,2]247	[1,2]282
1990	229	255	[2]290	230	259	[2]296	227	252	[2]285
1992	[2]231	258	[2]294	[2]235	260	[2]299	227	256	[2]289
1994	[2]231	257	[2]294	232	259	[2]300	[2]230	254	[2]289
1996	[2]230	256	[2]296	232	261	[2]300	[2]228	252	[2]292

Average science proficiency (scale score), by race/ethnicity and age: 1970–96

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	236	263	[1]312	[1]179	[1]215	258	—	—	—
1973	231	259	304	177	205	250	—	—	—
1977	[1,2]230	[1,2]256	[1,2]298	[1]175	[1]208	[1,2]240	[1]192	[1]213	262
1982	[1,2]229	[1,2]257	[1,2]293	[1]187	[1]217	[1,2]235	[1]189	[2]226	[2]249
1986	[1,2]232	[1]259	[1,2]298	[2]196	222	253	199	[2]226	259
1990	238	264	[2]301	[2]196	[2]226	253	[2]206	[2]232	262
1992	239	[2]267	[2]304	[2]200	224	256	[2]205	[2]238	270
1994	240	[2]267	[2]306	[2]201	224	257	[2]201	[2]232	261
1996	239	266	[2]307	[2]202	[2]226	260	[2]207	[2]232	269

— Not available.

[1] Statistically significant difference from 1996.

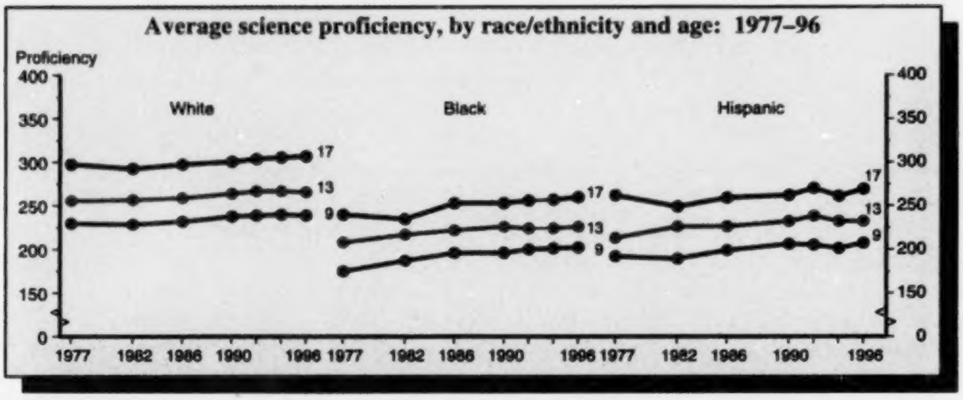
[2] Statistically significant from 1970 for whites and blacks, and from 1977 for Hispanics.

NOTE: See the supplemental note to *Indicator 16* for further discussion of the NAEP assessments. The science proficiency scale has a range from 0 to 500. (See supplemental table 19-1 for detailed explanations of levels.)

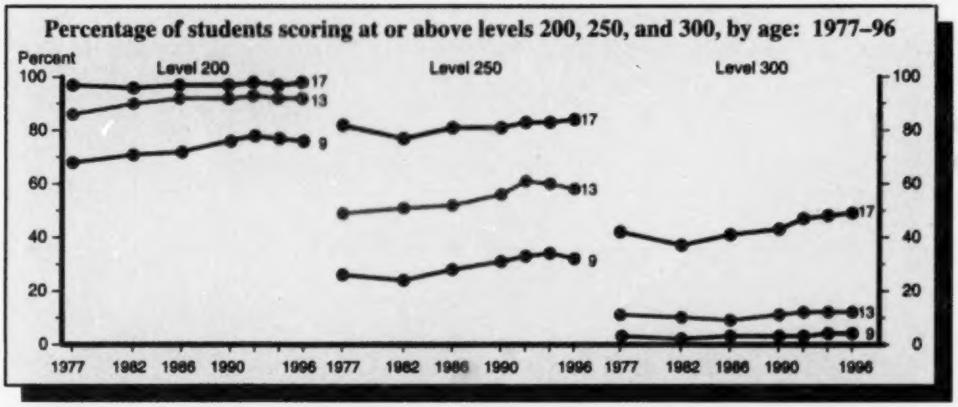
Level 150: Knows everyday science facts
Level 200: Understands simple scientific principles
Level 250: Applies general scientific information
Level 300: Analyzes scientific procedures and data
Level 350: Integrates specialized scientific information

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1998.

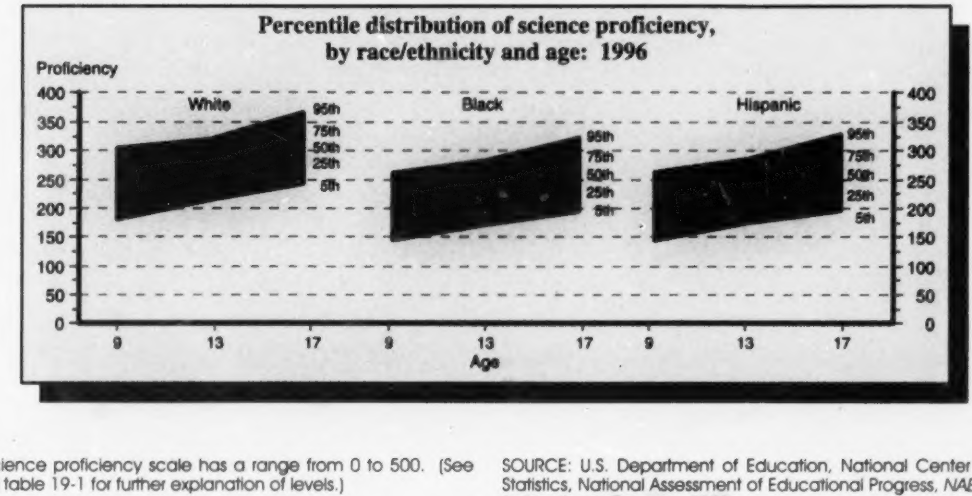
Average science proficiency (scale score)



Average science proficiency, by race/ethnicity and age: 1977–96



Percentage of students scoring at or above levels 200, 250, and 300, by age: 1977–96



Percentile distribution of science proficiency, by race/ethnicity and age: 1996

NOTE: The science proficiency scale has a range from 0 to 500. (See supplemental table 19-1 for further explanation of levels.)

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1998.

International comparisons of mathematics and science performance of 4th-, 8th-, and 12th-grade students

The technical and scientific skills of a nation's workers are a crucial component of its economic competitiveness. The recently completed Third International Mathematics and Science Study (TIMSS) assessed the mathematics and science performance of students around the world. By comparing the mathematics and science proficiency of 4th-, 8th-, and 12th-graders in six wealthy industrialized countries, it is possible to monitor U.S. progress toward the National Education Goal of being first in the world in mathematics and science achievement.

- U.S. 4th-graders scored above the 26-nation average in both mathematics and science. In science, only students in Korea outperformed U.S. 4th-graders, while in mathematics, U.S. 4th-graders outperformed their peers in 12 countries and scored below their peers in 7 countries.
- U.S. 8th-graders scored above the 41-nation average in science and below the international average in mathematics. In science, U.S. 8th-graders outperformed their peers in 15 countries and scored below their peers in 9 countries. In mathematics, 8th-graders in 20 countries outperformed U.S. 8th-graders. U.S. 8th-graders had higher scores than their peers in 7 countries.
- U.S. 12th-graders scored below the 21-nation average in both mathematics and science. In science, U.S. 12th-graders scored below students in the last year of secondary school in 11 countries. U.S. 12th-graders outperformed their peers in 2 countries. In mathematics, U.S. students scored below their peers in 14 countries and outperformed their peers in 2 countries.

Average mathematics proficiency scores, by country, grade, and sex: 1995

	4th-grade			8th-grade			12th-grade		
G-7 country	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Canada[3]	532	534	531	[4]527	[4]526	[4]530	[4]519	[4]537	[4]504
England[1,2]	[5]513	[5]515	[5]510	506	508	504	—	—	—
France[3]	—	—	—	[4]538	[4]542	[4]536	[4]523	[4]544	[4]506
Germany[2,3]	—	—	—	509	512	509	[4]495	[4]509	480
Italy[3]	—	—	—	—	—	—	476	490	464
Japan	[4]597	[4]601	[4]593	[4]605	[4]609	[4]600	—	—	—
United States[2]	545	545	544	500	502	497	461	466	456

Average science proficiency scores, by country, grade, and sex: 1995

	4th-grade			8th-grade			12th-grade		
G-7 country	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Canada[3]	[5]549	[5]553	[5]545	531	537	525	[4]532	[4]550	[4]518
England[1,2]	[5]551	[5]555	548	552	562	542	—	—	—
France[3]	—	—	—	[5]498	[5]506	[5]490	487	508	468
Germany[2,3]	—	—	—	531	542	524	497	514	478
Italy[3]	—	—	—	—	—	—	475	495	458
Japan	574	580	567	[4]571	[4]579	[4]562	—	—	—
United States[3]	565	571	560	534	539	530	480	492	469

— Not available.

[1] Did not meet international sampling or other guidelines for 4th grade.

[2] Did not meet international sampling or other guidelines for 8th grade.

[3] Did not meet international sampling or other guidelines for 12th grade.

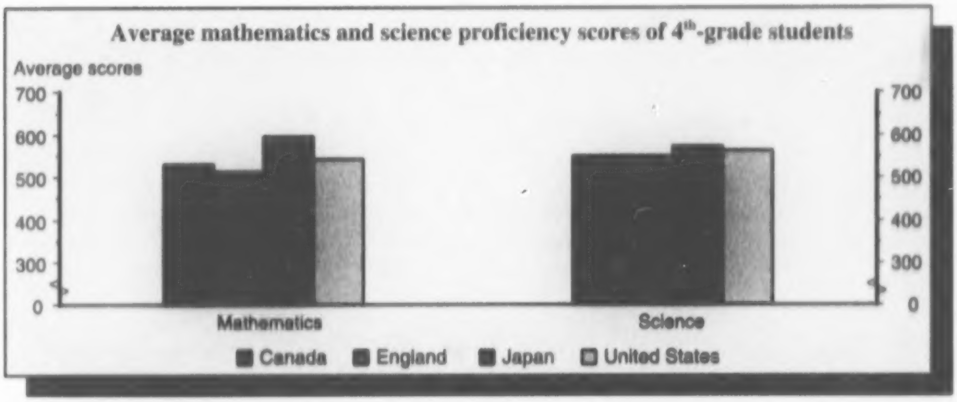
[4] Significantly higher than the United States at the .05 level.

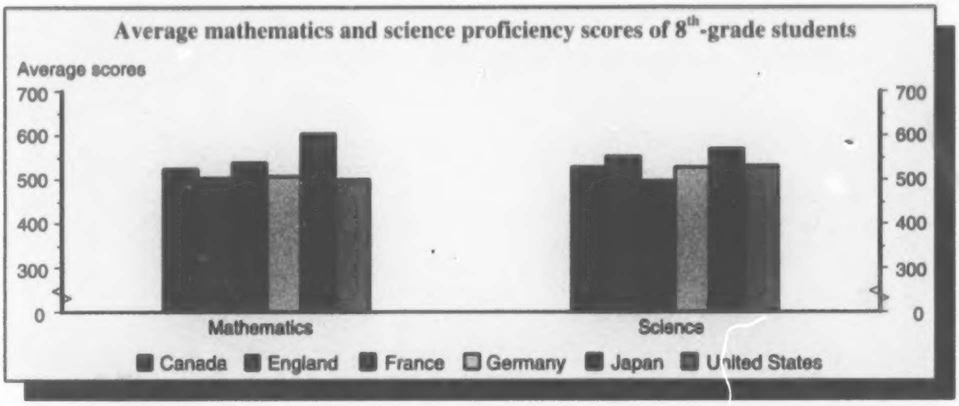
[5] Significantly lower than the United States at the .05 level.

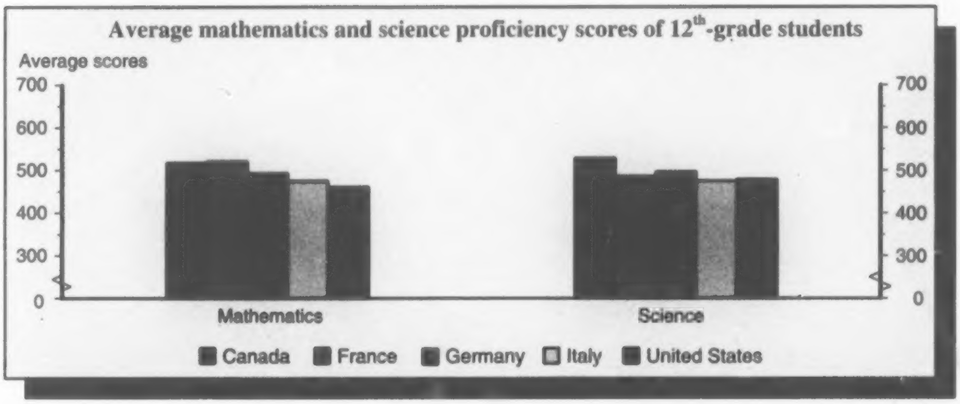
NOTE: Students in their last year of secondary school were assessed in whichever grade was in each country. In most countries, the 12th grade is the last year of secondary school, but in many countries (unlike the U.S.), the last year may be a lower or higher grade. See the supplemental note to this indicator for further explanation on countries that complied or did not comply with various data collection and sampling guidelines. See the glossary for the definition of G-7 countries.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years (1996), Science Achievement in the Middle School Years (1996), Mathematics Achievement in the Primary School Years (1997), Science Achievement in the Primary School Years (1997).* U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context,* 1998.

Average mathematics and science proficiency scores for G-7 countries: 1995


Average mathematics and science proficiency scores of 4th-grade students


Average mathematics and science proficiency scores of 8th-grade students


Average mathematics and science proficiency scores of 12th-grade students

NOTE: Data are not available for 4th-grade students in France, Germany, and Italy; 8th-grade students in Italy; and 12th-grade students in England and Japan.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years* (1996), *Science Achievement in the Middle School Years* (1996), *Mathematics Achievement in the Primary School Years* (1997), *Science Achievement in the Primary School Years* (1997). U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

International comparisons of adult literacy

Literacy has been viewed as one of the fundamental tools necessary for successful economic performance in industrialized societies. The International Adult Literacy Survey (IALS) assessed adult literacy performance in 12 countries. The five literacy levels expressed along three scales—prose, document, and quantitative—measure a range of literacy, from the basic ability to locate information within simple text, to the ability to understand and use printed information in daily activities, at home, at work, and in the community. As society becomes more complex and low skill jobs continue to disappear, concern about adults' ability to use written information to function in society continues to increase.

- Approximately one-fifth of adults in the United States scored at or above level 4 on the prose, document, and quantitative literacy scales. Of the 11 other countries that participated in the International Adult Literacy Survey (IALS), only Sweden exceeded the United States in the percentage of adults scoring at the highest levels of literacy in any of the three domains; the only exception was Canada, which had a greater proportion of adults scoring at or above level 4 on the document scale than did the United States.
- Adults with a college degree were much more likely to score at level 4 or above than adults with a high school degree, across all countries and across all three literacy scales. In some countries, the difference between the percentages of college graduates and high school graduates scoring at the highest levels of literacy was relatively large (29 percentage points for document literacy in the United States), while in other countries, the difference was relatively small (10 percentage points for document literacy in the Netherlands) (see supplemental table 21-1).

Percentage distribution of the population scoring at each of five literacy levels, by literacy scale and country: 1994

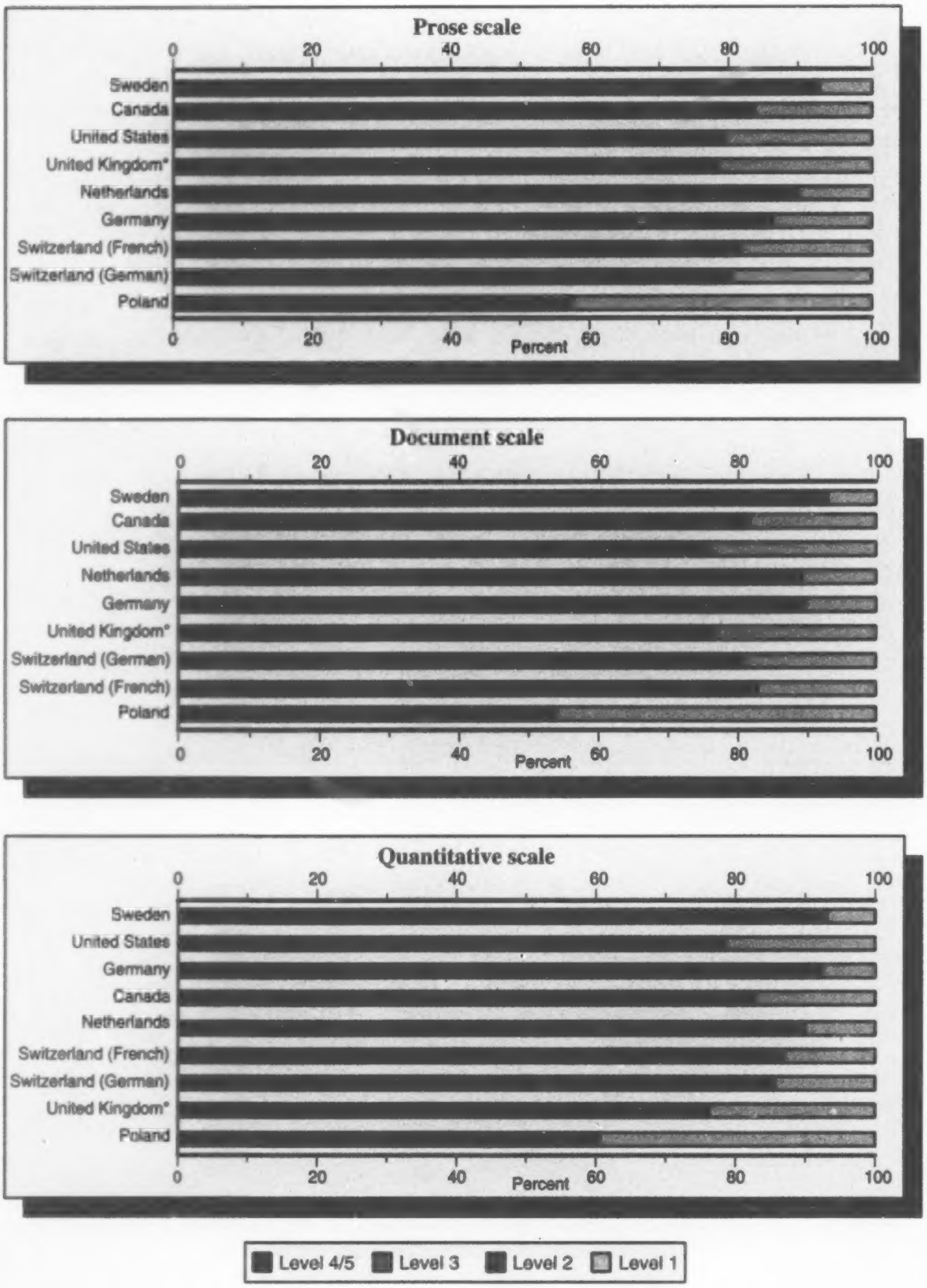
	Prose scale				Document scale				Quantitative scale			
Country	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Belgium*	18.6	29.0	37.4	15.0	15.0	25.7	41.5	17.5	16.5	23.3	37.0	23.2
Canada	16.6	24.8	36.4	22.3	17.9	23.7	32.7	25.7	16.6	25.6	34.7	23.1
Germany	13.8	35.3	37.3	13.6	9.6	32.0	39.5	18.9	7.0	26.1	43.6	23.4
Ireland*	22.6	30.6	33.7	13.2	25.6	32.0	31.5	10.9	24.9	28.8	30.3	15.9
Netherlands	10.4	29.4	44.7	15.5	10.3	25.5	44.5	19.7	10.0	25.7	44.1	20.3
New Zealand*	18.2	28.5	34.5	18.8	21.1	29.6	32.5	16.8	20.3	28.9	33.9	16.9
Poland	42.7	34.3	19.2	3.7	45.4	30.3	18.5	5.8	39.0	30.6	23.2	7.2
Sweden	7.2	20.7	39.8	32.2	6.3	19.2	38.8	35.7	6.6	19.1	38.4	35.9
Switzerland (French)	18.5	34.3	37.7	9.6	16.4	29.6	37.6	16.3	12.8	25.4	42.7	19.1
Switzerland (German)	19.5	34.2	37.1	9.3	18.4	27.5	36.9	17.3	14.1	25.0	41.9	19.0
United Kingdom*	21.6	30.1	32.6	15.7	23.1	27.6	30.5	18.8	23.4	27.6	30.5	18.5
United States	20.8	24.4	32.8	22.0	23.6	25.0	31.5	19.9	21.0	24.0	31.6	23.5

* Data are for 1996.

NOTE: Some data are revised from previously published figures due to differences in the calculations of proficiency scores. Individuals who performed at level 1 demonstrated the lowest level of literacy proficiency, while those scoring at level 5 displayed the highest level. See the supplemental note to this indicator for a description of the literacy scales and levels.

SOURCE: Organization for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994 and 1996.

Percentage distribution of the population in selected countries scoring at each of five literacy levels, by literacy scale: 1994



* Data are for 1996.

NOTE: See the supplemental note to this indicator for a description of the literacy scales and levels.

SOURCE: Organization for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994 and 1996.

Educational attainment

Changes in educational attainment over time indicate changes in the demand for skills and knowledge in the work force, as well as cultural evolution. An increase in the overall level of educational attainment can reflect the increasing emphasis society places on completing high school and college. Completing high school or college is an important educational accomplishment that yields many benefits, such as better job opportunities and higher earnings.

- The educational attainment of 25- to 29-year-olds increased between 1971 and 1997. The percentage of students completing high school rose from 78 to 87 percent; the percentage of high school completers with some college rose from 44 to 65 percent; and the percentage of high school completers with 4 or more years of college rose from 22 to 32 percent.
- The educational attainment of blacks ages 25–29 increased across all education levels between 1971 and 1997. For example, the percentage of high school completers rose from 59 to 87 percent for blacks during this time period. However, the percentage difference between the attainment of blacks and whites decreased only for high school completers.
- In 1997, fewer Hispanic 25- to 29-year-olds completed high school than their black counterparts. The percentages of Hispanic and black high school completers with some college or a bachelor's degree or higher were similar.
- In 1997, females ages 25–29 were more likely than their male peers to have completed high school, some college, or a bachelor's degree or higher (see supplemental tables 22-1, 22-2, and 22-3).

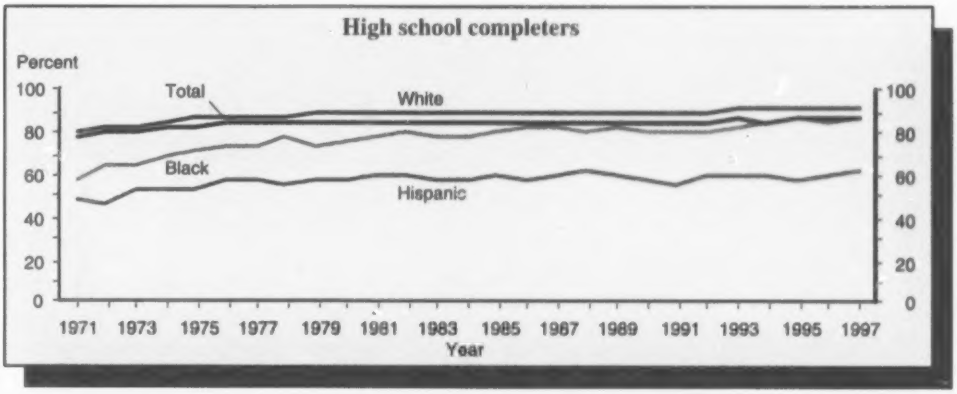
Percentage of 25- to 29-year-olds who completed high school, and percentage of high school completers with 1 or more and 4 or more years of college, by race/ethnicity: March 1971–97

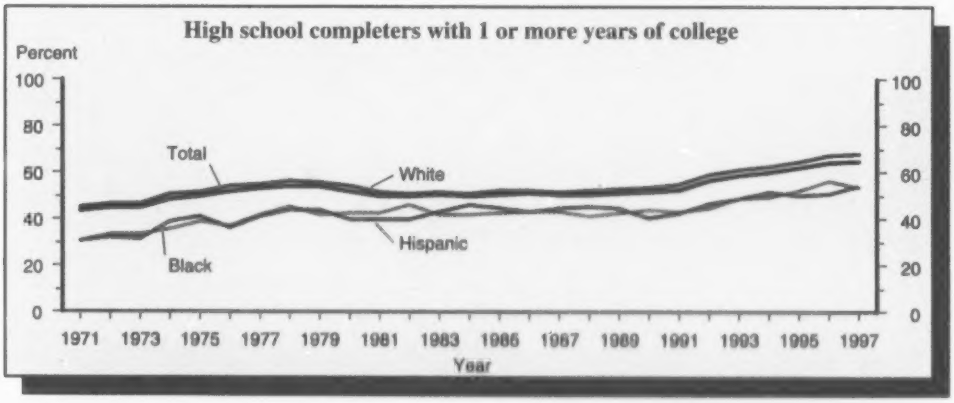
					High school completers with:							
	High school completers				1 or more years of college				4 or more years of college			
March	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	77.7	81.7	58.8	48.3	43.6	44.9	30.9	30.6	22.0	23.1	11.5	10.5
1973	80.2	84.0	64.1	52.3	45.3	46.6	33.5	31.6	23.6	24.8	12.7	10.8
1975	83.1	86.6	71.1	53.1	50.1	51.2	38.7	41.1	26.3	27.5	14.7	16.6
1977	85.4	88.6	74.5	58.0	53.2	54.8	41.7	41.1	28.1	29.8	16.9	11.5
1979	85.6	89.2	74.7	57.1	54.1	55.7	41.7	44.0	27.0	28.6	16.6	12.9
1981	86.3	89.8	77.6	59.8	50.1	51.2	42.5	39.6	24.7	26.3	14.9	12.5
1983	86.0	89.3	79.5	58.4	50.6	51.6	41.6	42.9	26.2	27.4	16.2	17.8
1985	86.2	89.5	80.5	61.0	50.8	51.8	42.7	44.2	25.7	27.3	14.4	18.2
1987	86.0	89.4	83.5	59.8	50.7	51.4	43.0	44.6	25.6	27.6	13.8	14.5
1989	85.5	89.3	82.3	61.0	51.3	52.8	42.1	44.3	27.3	29.5	15.4	16.5
1991	85.4	89.8	81.8	56.7	53.1	54.9	43.2	42.2	27.2	29.7	13.4	16.3
	Diploma or equivalency certificate				**Some college**				**Bachelor's degree or higher**			
1992	86.3	90.6	80.9	60.9	56.7	58.8	44.7	46.8	27.3	30.0	13.7	15.6
1993	86.7	91.2	82.7	60.9	58.9	61.0	48.4	48.8	27.3	29.8	16.1	13.6
1994	86.1	91.1	84.1	60.3	60.5	62.7	49.6	51.5	27.0	29.7	16.2	13.3
1995	86.9	92.5	86.8	57.2	62.2	64.6	52.0	50.3	28.4	31.2	17.8	15.5
1996	87.3	92.6	86.0	61.1	64.7	67.0	55.9	50.9	31.1	34.1	17.0	16.4
1997	87.4	92.9	86.9	61.8	65.4	68.2	53.7	53.9	31.8	35.2	16.4	17.8

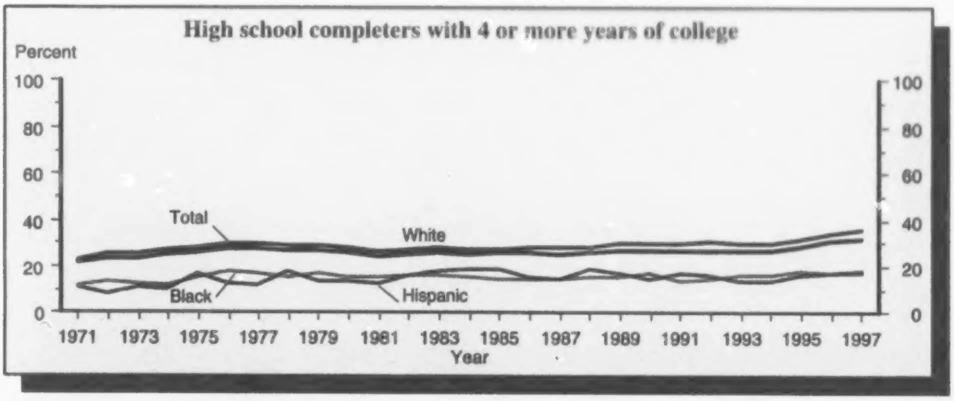
NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The category "diploma or equivalency certificate" includes those who have a high school diploma or an equivalency certificate; "some college" includes those with an associate degree or vocational certificate; and "bachelor's degree or higher" includes those with an advanced degree. See the supplemental note to this indicator for further discussion. Included in the total but not shown separately are other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage of 25- to 29-year-olds who completed high school, and percentage of high school completers with 1 or more and 4 or more years of college, by race/ethnicity: March 1971–97


High school completers


High school completers with 1 or more years of college


High school completers with 4 or more years of college

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. Included in the total but not shown separately are other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

International comparisons of educational attainment, by age

The percentage of the population completing secondary and higher education in different countries may be used to compare the skill level of the U.S. work force to that of our economic competitors. Additionally, contrasting the educational attainment of the general population to the attainment of younger age cohorts provides a means of comparing progress in the rates of high school and college completion.

- A similar or higher percentage of 25- to 64-year-olds in the United States completed secondary and higher education compared to their counterparts in Japan, Germany, the United Kingdom, France, Italy, and Canada.

- Individuals 25 to 34 years old in Japan, Germany, the United Kingdom, France, and Canada completed secondary education at rates similar to their counterparts in the United States.

- The similarity of completion rates among the younger generation (those ages 25–34) indicates that the other countries have essentially caught up to the United States in the percentage of their populations completing secondary education.

- Females ages 25–34 in the United States were much more likely to complete higher education than females and males of the same age group in other large industrialized countries (with the exception of males ages 25–34 in Japan).

- Males ages 25–34 in Japan were much more likely to complete higher education than males of the same age group in the other large industrialized countries. Males of the same age in the United

Percentage of the population in large industrialized countries who completed secondary and higher education, by age, sex, and country: 1995

	25–34 years old						25–64 years old	
	Total		Male		Female		Total	
Country	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
Canada	83.9	19.5	82.4	19.2	85.4	19.7	75.2	17.0
France	85.5	14.0	87.3	13.7	83.8	14.3	68.4	10.7
Germany	88.9	12.5	91.0	13.7	86.7	11.3	83.7	12.9
Italy	49.1	8.2	46.9	7.8	51.2	8.6	34.9	7.9
Japan[2]	90.6	22.9	89.3	34.2	91.8	11.5	69.7	13.3
United Kingdom	86.1	14.8	87.5	16.3	84.7	13.1	75.9	12.4
United States	87.1	25.0	86.1	25.1	88.2	24.9	85.8	25.3

[1] Includes individuals who have completed at least secondary education.

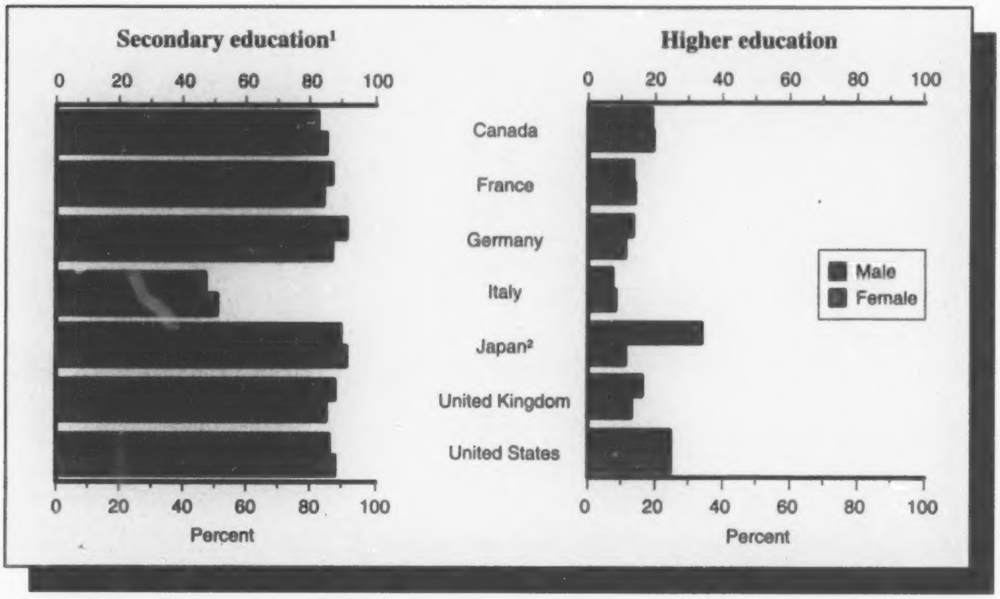
[2] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher.

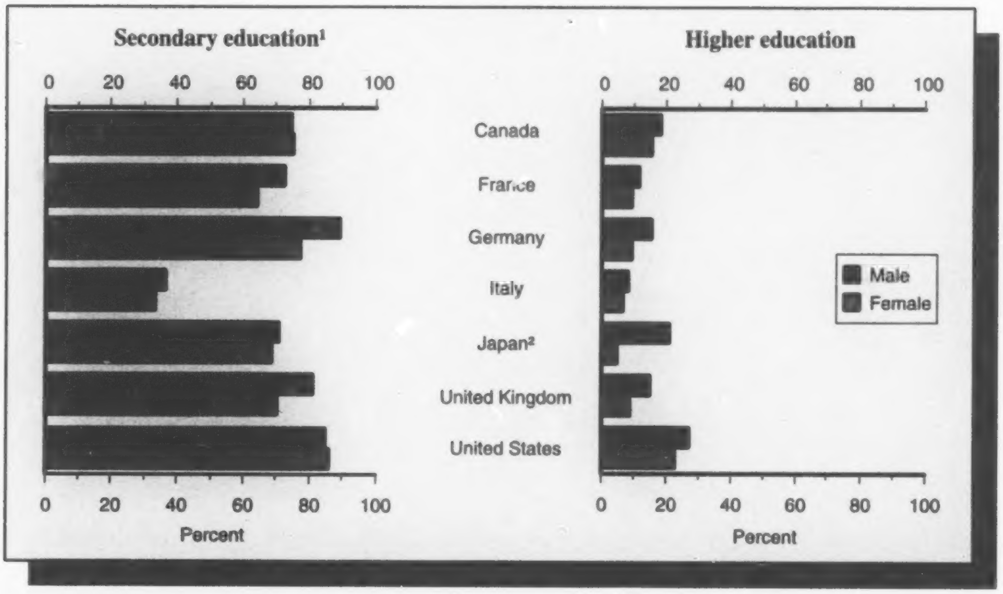
SOURCE: Organization for Economic Co-operation and Development, INES Project, International Indicators Project.

Percentage of the population in large industrialized countries who completed secondary and higher education, by age, sex, and country: 1995

25–34 years old



25–64 years old



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[1] Includes individuals who have completed at least secondary education.

[2] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher.

SOURCE: Organization for Economic Co-operation and Development, INES Project, International Indicators Project.

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High school dropouts and completions, by race/ethnicity and recency of migration

As a whole, Hispanics drop out of high school at higher rates and attain lower levels of education than non-Hispanics. The relative recency of migration among Hispanics may at least partially account for this trend. Evidence of undereducation has implications for developing strategies to keep students in school as well as for assessing the educational and training needs of the population.

- In 1996, a greater percentage of Hispanics than non-Hispanics ages 16–24 were born outside the 50 states and D.C. (supplemental table 24-1). Among this group of Hispanics, the status dropout rate (44 percent) was higher than it was among first- and later-generation Hispanics (17 and 22 percent, respectively). Hispanic immigrants were about seven times more likely than non-Hispanic immigrants to be dropouts. First- and later-generation Hispanics were more than twice as likely to drop out as their non-Hispanic peers.
- In 1996, the percentage of 25- to 34-year-olds who had not completed high school was lower than that in 1989 or 1979. The proportion of Hispanic immigrants who had not completed high school also declined during this period, from 60 percent in 1979 to 50 percent in 1996. However, Hispanic immigrants were much less likely to have completed high school than were other immigrants.

Percentage of 16- to 24-year-olds who were not enrolled in school and had not completed high school, by recency of migration and race/ethnicity: October 1996

		Hispanic			Non-Hispanic			
Recency of migration	Total	Total	Mexican	Other Hispanic	Total	White	Black	Asian/Pacific Islander
Total*	**11.1**	**29.4**	**34.6**	**15.7**	**8.2**	**7.3**	**13.0**	**5.3**
Born outside 50 states/D.C.	25.3	44.1	53.3	21.4	6.4	5.3	8.9	6.3
First generation	9.4	16.7	18.3	8.8	3.2	2.9	6.4	3.0
Later generation	9.3	22.0	23.4	15.6	8.7	7.6	13.4	6.3

Percentage of 25- to 34-year-olds who were not enrolled in school and had not completed high school, by year and recency of migration and race/ethnicity: November 1979 and 1989 and October 1996

		Hispanic			Non-Hispanic			
Year and recency of migration	Total	Total	Mexican	Other Hispanic	Total	White	Black	Asian/Pacific Islander
1979 Total*	**14.9**	**45.4**	**51.2**	**24.6**	**13.0**	**11.5**	**24.1**	—
Born outside 50 states/D.C.	34.4	59.9	74.8	30.6	16.1	18.6	15.3	—
First generation	12.3	30.8	35.3	4.3	8.2	7.8	18.1	—
Later generation	13.5	29.9	32.8	18.3	13.1	11.5	24.4	—
1989 Total*	**13.1**	**39.1**	**45.9**	**27.6**	**10.5**	**9.1**	**18.9**	**10.5**
Born outside 50 states/D.C.	31.8	51.8	69.9	28.6	11.5	10.2	14.2	12.3
First generation	10.5	25.3	25.2	28.5	4.5	4.0	8.9	5.9
Later generation	11.2	23.0	23.7	19.7	10.8	9.4	19.3	3.9
1996 Total*	**12.2**	**37.8**	**45.3**	**26.5**	**8.4**	**7.8**	**11.7**	**7.6**
Born outside 50 states/D.C.	29.8	49.6	60.9	32.2	9.0	7.5	14.5	9.1
First generation	8.6	14.0	15.4	4.6	5.6	5.7	11.5	2.4
Later generation	9.1	24.1	25.9	20.1	8.6	8.0	11.6	0.9

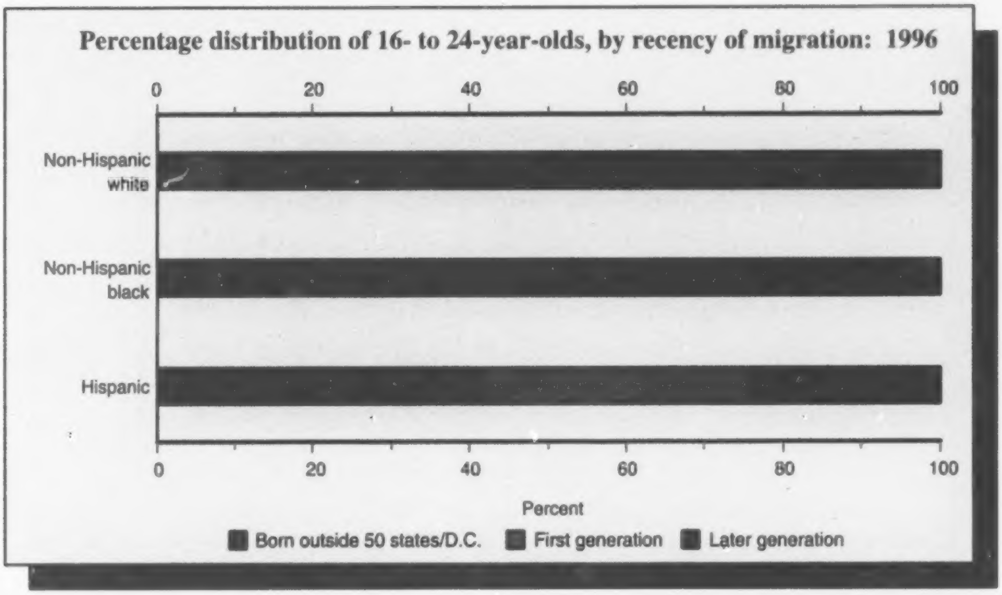
— Not available.

* Total includes a small proportion for whom recency of migration is unknown.

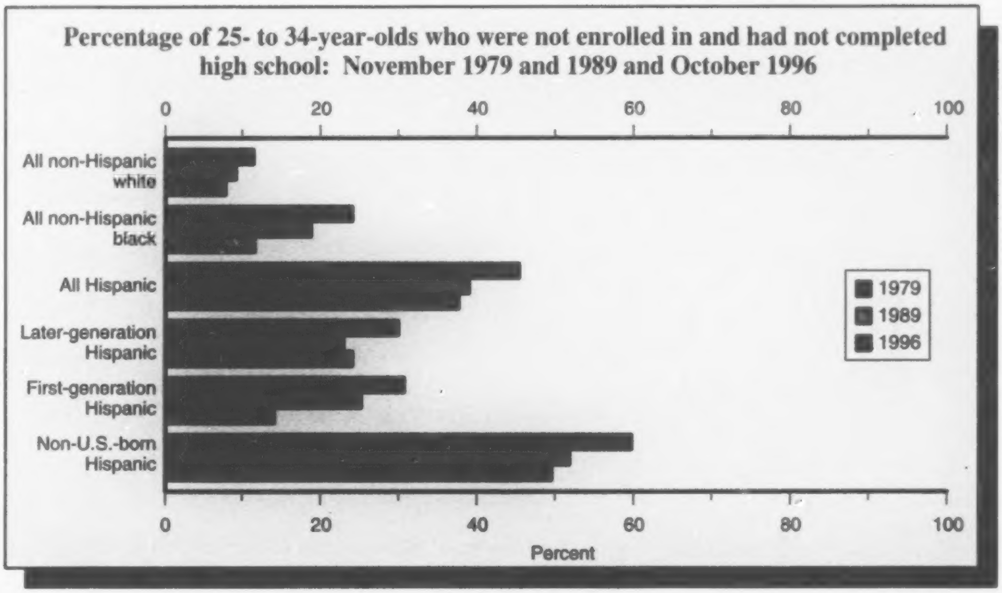
NOTE: People born in Puerto Rico and the U.S. territories are grouped with those born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington D.C. and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, November Current Population Survey, 1979 and 1989; and October Current Population Survey, 1996.

High school dropouts and completions, by race/ethnicity and recency of migration



Percentage distribution of 16- to 24-year-olds, by recency of migration: 1996



Percentage of 25- to 34-year-olds who were not enrolled in and had not completed high school: November 1979 and 1989 and October 1996

NOTE: People born in Puerto Rico and the U.S. territories are grouped with those born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington D.C. and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, November Current Population Survey, 1979 and 1989; and October Current Population Survey, 1996.

Community service participation of students in grades 6–12

One objective of the National Education Goals is that all students be involved in activities that promote and demonstrate good citizenship and community service. Participating in community service may reduce the feeling of alienation from society that adolescents often experience and may have a positive effect on students' grades and school attendance. Student participation in service activities also benefits the community by providing scarce resources for various service projects. Data on student participation in community service activities may help school administrators assess their current community service requirements and help them find ways to integrate community service activities into the curriculum.

- In 1996, about half (49 percent) of students in grades 6–12 participated in community service: 26 percent participated on a regular basis, and 23 percent participated once or twice during the school year.
- Students in grades 6–12 were more likely to participate in community service if an adult in the household also did so. For example, 32 percent of students who lived in a household with an adult who participated in community service participated regularly, compared to 19 percent of students in a household to an adult who did not participate.
- Students who were involved in student government, other school activities, non-school activities, or who worked for pay were more likely to participate in community service than students who were not involved in these activities (see supplemental table 25-1).
- Student participation rates in schools that only arranged community service were higher than student participation rates in schools that only required community service. Participation rates in schools that both required and arranged community service were similar to the rates in schools that only arranged community service (see supplemental table 25-1).

Percentage of students in grades 6–12 who participated or planned to participate in community service, by selected student characteristics: 1996

Student characteristics	Participated in community service[1] Total	Regular participation	One or two times	Will participate before the end of the school year[2]	Plan to do community service next year
Total	**49.1**	**25.6**	**23.4**	**31.1**	**80.5**
Grade level					
6–8	47.4	23.0	24.4	34.1	84.4
9–10	45.4	23.6	21.8	34.5	82.9
11–12	56.1	32.4	23.7	22.3	71.1
Parents' highest education level					
Less than high school diploma	33.8	15.4	18.4	43.5	78.8
High school diploma or GED	42.1	22.3	19.8	35.5	76.5
Some college/vocational/technical	48.4	25.4	23.0	30.5	79.4
Bachelor's degree	58.0	29.2	28.7	25.7	83.5
Graduate/professional school	64.3	35.2	29.1	21.6	88.2
Any adult in the household who performs community service					
Yes	57.5	31.7	25.8	28.4	86.4
No	39.4	18.7	20.8	34.2	73.7

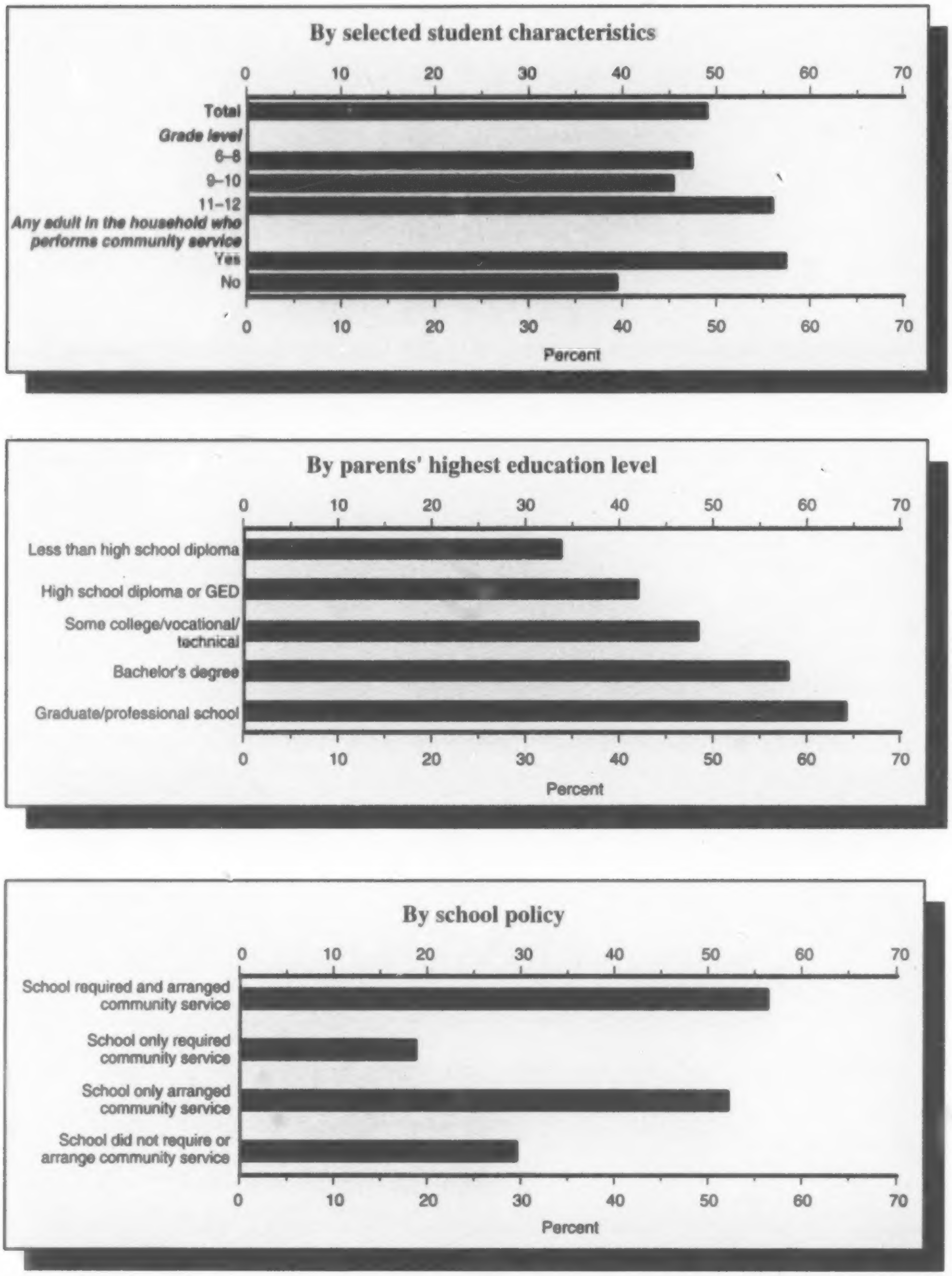
[1] Data were collected from January 2, 1996 through April 13, 1996. Any student who reported participating in at least one activity more than twice during the school year was classified as a regular participant. Students may have participated in multiple activities without being classified as regular participants if no individual activity was performed more than twice.

[2] Only students who had performed no community service by the time of the interview were asked if they had plans to participate. The percentages were calculated based on students in school in grades 6–12, not just those who participated or planned to participate in community service.

NOTE: Ungraded students or children who were home schooled were not included in this analysis. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

Percentage of students in grades 6–12 who participated in community service: 1996



NOTE: Includes students in school in grades 6–12, not just those who participated or planned to participate in community service. For schools that required students to participate in community service, students must have completed the community service before graduation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

High school graduation requirements

One of the National Education Goals states that students leaving grade 12 will have demonstrated competency in English, mathematics, science, and social studies (history and geography). The extent to which public school districts and private schools include substantial coursework in these core subjects is an indication of the level of support educators are giving this goal. The 1983 recommendations by the National Commission on Excellence in Education (NCEE)—4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies—provide a useful standard for comparing course requirements.

- Between the 1987–88 and 1993–94 school years, the percentage of public school districts that had high school graduation requirements meeting or exceeding NCEE recommendations for the four core subject areas increased from 12 to 20 percent.
- Public school districts in most states and private schools were more likely to meet or exceed the NCEE recommendation for English than for mathematics or science (see supplemental table 26-1).
- Private schools were more likely to have graduation requirements that met or exceeded the NCEE recommendations for the four core subjects than public school districts. For example, in the 1993–94 school year, 45 percent of private schools had graduation requirements that met or exceeded NCEE recommendations for the four core subjects, compared to 20 percent of public school districts.
- During the 1993–94 school year, public school districts with a high minority enrollment (50 percent or more) were more likely to have graduation requirements that met or exceeded the NCEE recommendations for the four core subjects than districts with a low minority enrollment (less than 5 percent) (see supplemental table 26-2).

Average years of study public school districts and private schools required in core subjects[1] for high school graduation, and percentage of public school districts and private schools with graduation requirements at or above NCEE recommendations,[2] by subject: School years 1987–88, 1990–91, and 1993–94

	English		Mathematics		Science		Core subjects	
School year	Average years required	Percentage requiring 4 or more years	Average years required	Percentage requiring 3 or more years	Average years required	Percentage requiring 3 or more years	Average years required	Percentage meeting NCEE recommendations[3]
Public school districts								
1987–88	3.8	80.0	2.4	34.6	2.0	17.2	11.0	12.3
1990–91	3.8	[4]82.5	[4]2.4	[4]40.3	2.1	[4]21.5	11.2	[4]15.2
1993–94	3.9	85.2	2.5	44.8	2.2	25.2	11.5	19.8
Private schools								
1987–88	3.9	93.8	2.9	67.4	2.5	43.5	12.5	38.6
1990–91	3.9	93.2	2.8	71.1	2.5	49.0	12.3	43.9
1993–94	4.0	98.9	2.9	74.8	2.5	49.0	12.7	44.8

[1] Core subjects include English, mathematics, science, and social studies. Data for social studies are included in the totals but are not shown separately.

[2] The National Commission on Excellence in Education (NCEE) recommends that students complete 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies.

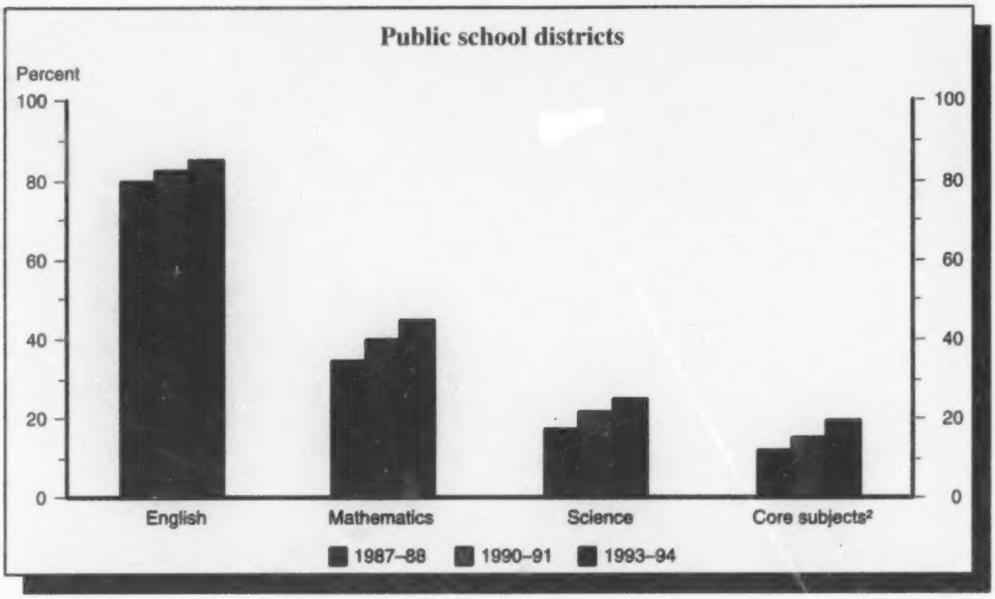
[3] "Percentage meeting NCEE recommendations" refers to a combination of the required years students must take the four core subjects: 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies, which adds to a total of 13 years.

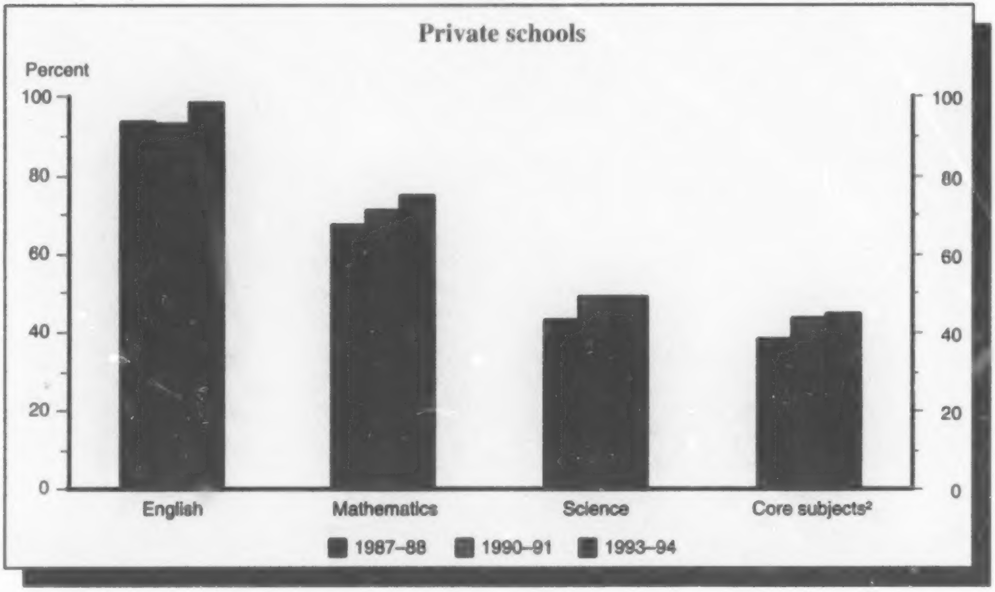
[4] Revised from previously published figures.

NOTE: Public school districts with curriculum requirements for 3-year programs were excluded from this analysis (1 percent of all districts).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (Teacher Demand and Shortage Questionnaire and Private School Questionnaire), 1987–88, 1990–91, and 1993–94.

Percentage of public school districts and private schools with graduation requirements at or above NCEE recommendations,[1] by subject: School years 1987–88, 1990–91, and 1993–94





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[1] The National Commission on Excellence in Education (NCEE) recommends that students complete 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies.

[2] Core subjects include English, mathematics, science, and social studies. Data for social studies are not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (Teacher Demand and Shortage Questionnaire and Private School Questionnaire), 1987–88, 1990–91, and 1993–94.

Students who took Advanced Placement (AP) examinations

The Advanced Placement (AP) program is associated with a demanding academic curriculum and illustrates the desire of high schools, colleges, and universities to offer college-level courses to high school students. By offering AP courses, schools give students the opportunity to participate in the AP program and acquire college credit for their knowledge of college-level subjects. Measuring the number of students per 1,000 12th-graders who participated in AP examinations each year shows the level of importance students, schools, and colleges place on the AP program and how that importance has changed over time.

- Between 1984 and 1996, the number of students who took AP exams increased dramatically, rising from 50 to 131 students per 1,000 12th-graders. The number of examinees increased for both males and females and for whites, blacks, and Hispanics during this period.
- In 1984, equal proportions of male and female students took AP examinations. Between 1984 and 1996, the number of females who took the examinations rose at a faster rate than did the number of males who took the examinations. In 1996, 144 females compared to 117 males per 1,000 12th-graders took AP examinations.
- In 1996, whites were more likely than blacks or Hispanics to take AP examinations in all subject areas, with the exception of foreign languages. Hispanics were almost three times as likely to take a foreign language AP examination as whites.

Number of students[1] who took AP examinations (per 1,000 12th-graders), by sex and race/ethnicity: 1984–96

Sex and race/ethnicity	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total[2]	**50**	**59**	**64**	**66**	**81**	**88**	**100**	**103**	**109**	**117**	**115**	**125**	**131**
Sex													
Male	50	61	65	68	76	86	101	96	102	108	101	111	117
Female	50	58	63	65	85	90	98	111	117	127	129	140	144
Race/ethnicity													
White	48	60	62	63	82	92	103	107	112	115	116	125	133
Black	8	11	12	13	21	20	26	25	26	31	32	37	32
Hispanic	24	21	27	30	48	54	54	67	68	80	63	75	74

[1] "Number of students" includes 11th- and 12th-graders. See the supplemental note to this indicator for further discussion.

[2] Included in the totals but not shown separately are students from other racial/ethnic groups.

Number of AP examinations[1] taken and the number of examinations with scores of 3 or higher (per 1,000 12th-graders), by subject area, sex, and race/ethnicity: 1996

Sex and race/ethnicity	Number of AP examinations taken						Number of examinations with scores of 3 or higher					
	Social studies	English	Foreign language	Calculus	Computer science	Science	Social studies	English	Foreign language	Calculus	Computer science	Science
Total[2]	**58**	**55**	**17**	**33**	**3**	**35**	**35**	**36**	**12**	**21**	**1**	**21**
Sex[3]												
Male	62	42	13	37	5	41	40	27	9	25	3	28
Female	69	70	23	30	1	34	39	46	17	18	0	19
Race/ethnicity												
White	60	59	12	33	3	34	37	40	7	21	1	21
Black	13	15	3	6	0	7	5	5	1	2	0	2
Hispanic	23	23	35	10	1	10	10	10	31	5	0	4

[1] "Number of AP examinations" includes all examinations taken by 11th- and 12th-graders. See the supplemental note to this indicator for further discussion.

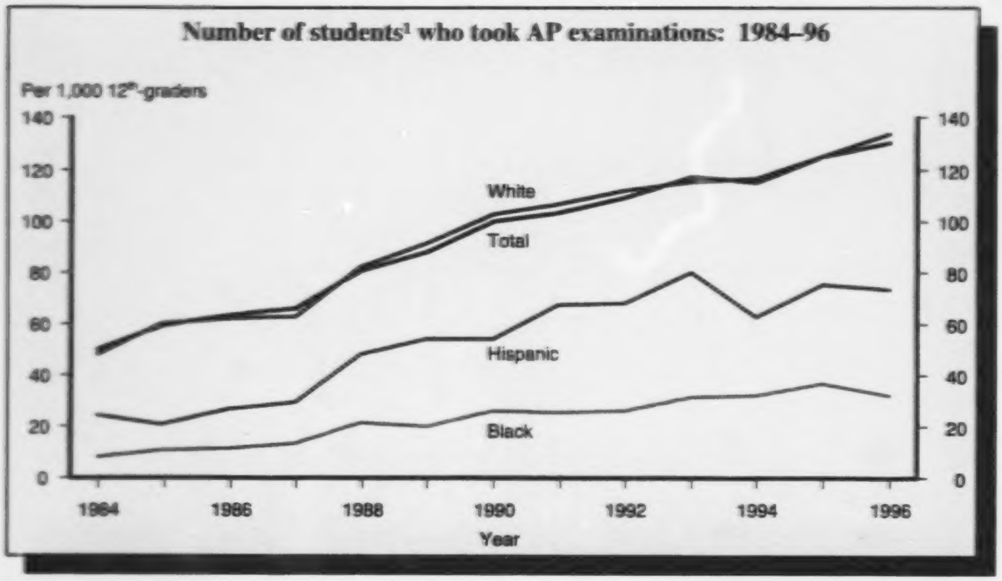
[2] Included in the total but not shown separately are students from other racial/ethnic groups.

[3] The number of examinations taken by males and females includes a small number of examinations taken by 9th-graders, 10th-graders, college students, and others (9 percent of all students who took AP examinations in 1996).

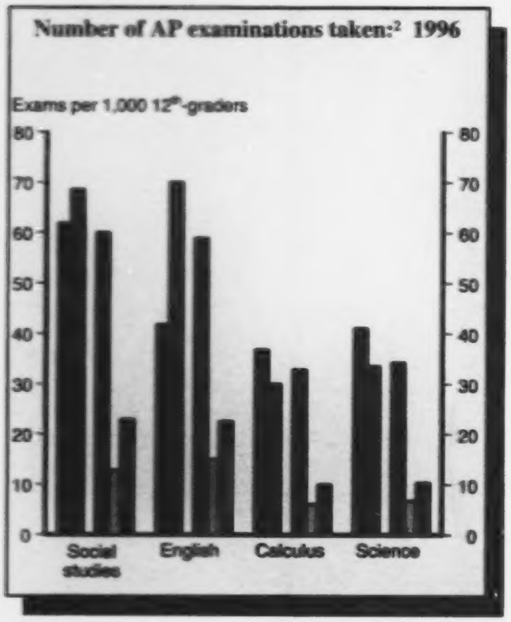
NOTE: Students scoring 3 or higher on an AP examination usually receive college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and a discussion of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright © 1996 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

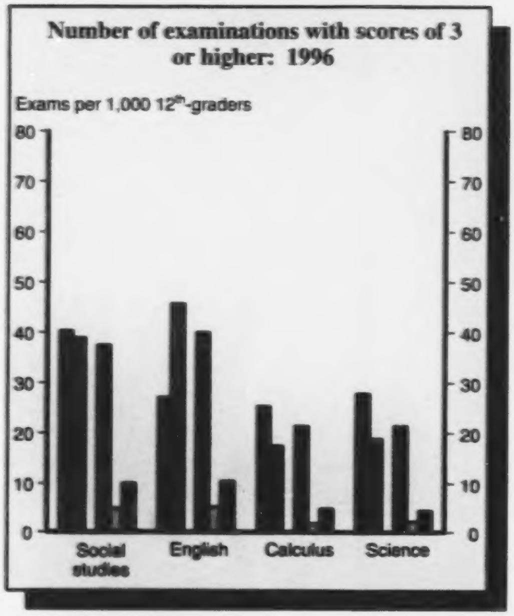
Students who took Advanced Placement (AP) examinations



Number of students[1] who took AP examinations: 1984–96



Number of AP examinations taken:[2] 1996



Number of examinations with scores of 3 or higher: 1996

■ Male ■ Female ■ White ☐ Black ■ Hispanic

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[1] "Number of students" includes 11th- and 12th-graders. See the supplemental note to this indicator for further discussion.

[2] "Number of AP examinations" includes all examinations taken by 11th- and 12th-graders. See the supplemental note to this indicator for further discussion.

NOTE: The number of examinations taken by males and females includes a small number of examinations taken by 9th-graders, 10th-graders, college students, and others (9 percent of all students who took AP examinations in 1996). Students scoring 3 or higher on an AP examination usually receive college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and a discussion of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright © 1996 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Remedial education in higher education institutions

The role of remedial courses in higher education institutions has been the subject of ongoing debate among policymakers and educators. Some view remedial courses as a way to expand educational opportunities for unprepared students, while others feel that remedial courses should be discouraged because precollege-level courses have no place in the college curriculum. The percentage of institutions offering remedial courses and the percentage of freshmen who enroll in them provide a snapshot of the current availability of and demand for these courses at higher education institutions.

- The percentage of freshmen enrolled in remedial courses and the percentage of institutions offering such courses were similar in 1989 and 1995.
- In 1995, freshmen were more likely to enroll in a remedial mathematics course than in a remedial reading or writing course. In fact, from 1989 to 1995, the percentage of freshmen who enrolled in a remedial mathematics course increased, while the percentage who enrolled in a remedial reading or writing course was similar.
- In 1995, freshmen in public 2-year colleges were far more likely to enroll in remedial courses than freshmen in public 4-year institutions (41 versus 22 percent).
- In 1995, almost all public 2-year institutions offered remedial writing and mathematics courses, while about three-quarters of public 4-year institutions offered remedial courses in these subjects. Half of private 4-year institutions offered remedial writing and mathematics courses.
- In 1995, a larger percentage of institutions with high minority enrollment offered remedial reading, writing, and mathematics courses than institutions with low minority enrollment.

Percentage of freshmen enrolled in remedial courses, by subject, control and type of institution, and minority enrollment: Fall 1989 and 1995

		1995						
			Public		Private		Minority enrollment*	
Subject	Fall 1989	Total	2-year	4-year	2-year	4-year	High	Low
Reading, writing, or mathematics	30	29	41	22	26	13	43	26
Reading	13	13	20	8	11	7	25	11
Writing	16	17	25	12	18	8	29	15
Mathematics	21	24	34	18	23	9	35	21

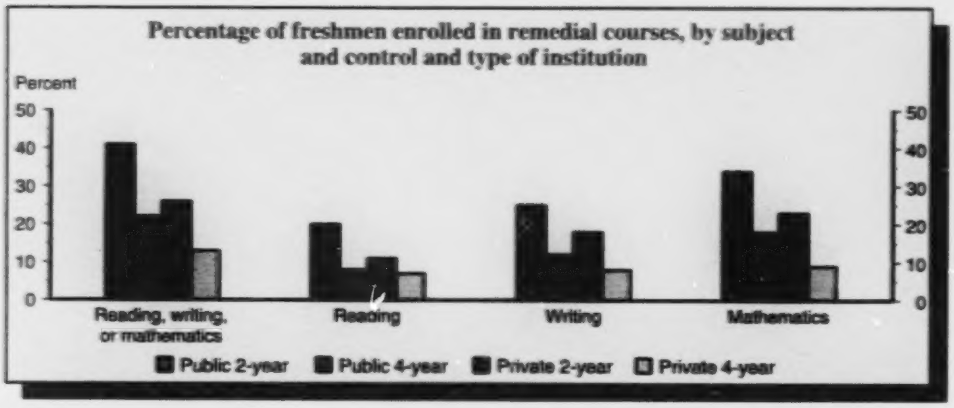
Percentage of higher education institutions offering remedial courses, by subject, control and type of institution, and minority enrollment: Fall 1989 and 1995

		1995						
			Public		Private		Minority enrollment*	
Subject	Fall 1989	Total	2-year	4-year	2-year	4-year	High	Low
Reading, writing, or mathematics	74	78	100	81	63	63	94	76
Reading	58	57	99	52	29	34	87	53
Writing	65	71	99	71	61	52	85	70
Mathematics	68	72	99	78	62	51	93	70

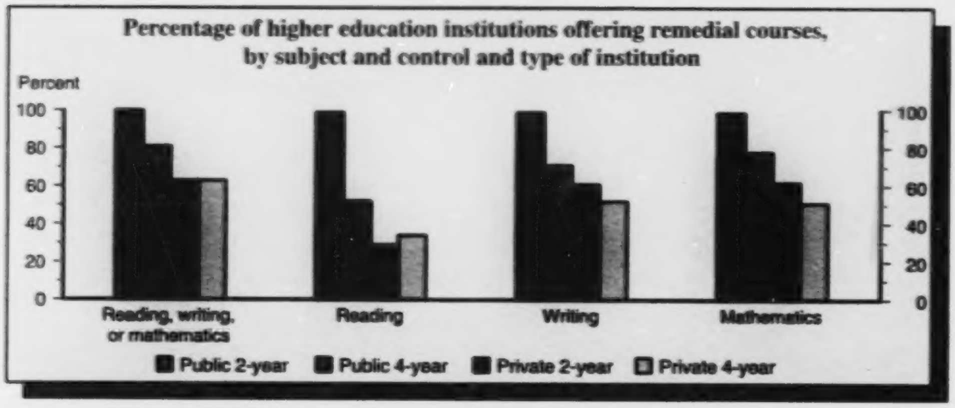
* Institutions with high minority enrollment are defined as those in which at least half of the U.S. citizens are minorities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Remedial Education at Higher Education Institutions in Fall 1995.*

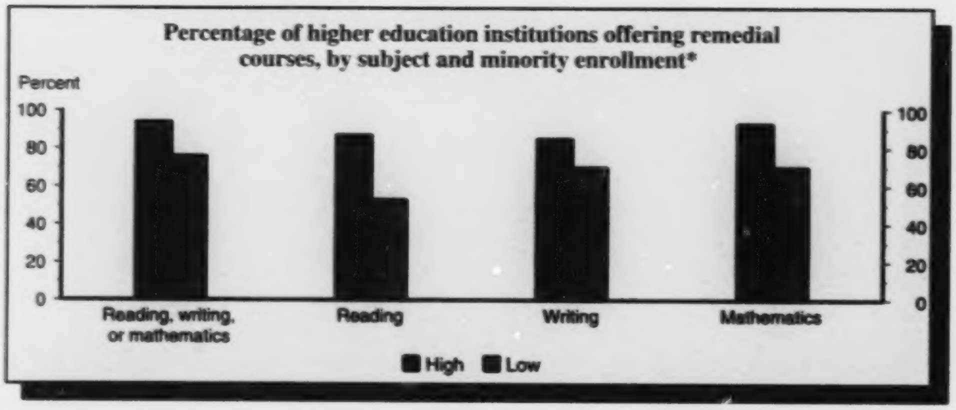
Remedial education in higher education: Fall 1995



Percentage of freshmen enrolled in remedial courses, by subject and control and type of institution



Percentage of higher education institutions offering remedial courses, by subject and control and type of institution



Percentage of higher education institutions offering remedial courses, by subject and minority enrollment*

* Institutions with high minority enrollment are defined as those in which at least half of the U.S. citizens are minorities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Remedial Education at Higher Education Institutions in Fall 1995.*

Bachelor's degrees conferred, by field of study and race/ethnicity

Changing opportunities within the job market affect the fields in which students choose to major. In turn, the majors that students choose affect the demand for courses and faculty, as well as the supply of new graduates in different fields. Trends in the number and proportion of bachelor's degrees conferred in different fields, as well as how these degrees are distributed across racial/ethnic groups, not only helps to identify changing conditions in the supply and demand of the job market, but also provides some insight into the diversity of the Nation's future work force.

- After declining for several years, the number of degrees conferred in the humanities and the social and behavioral sciences has grown since the mid-1980s. Combined with business management degrees, these three types of degrees have constituted half or more of all degrees conferred since 1971.

- Between 1977 and 1995, blacks and Hispanics were more likely than whites to earn bachelor's degrees in the social and behavioral sciences, while whites were more likely to earn degrees in the natural sciences (see supplemental table 29-1).

- After a sharp decline between 1986 and 1992, the number of degrees conferred in computer sciences and engineering leveled off between 1993 and 1995.

- The percentage of degrees conferred in health sciences was twice as large in 1995 as it was in 1971 (7 versus 3 percent), while the percentage of degrees conferred in education decreased by more than one-half during the same period (21 versus 9 percent).

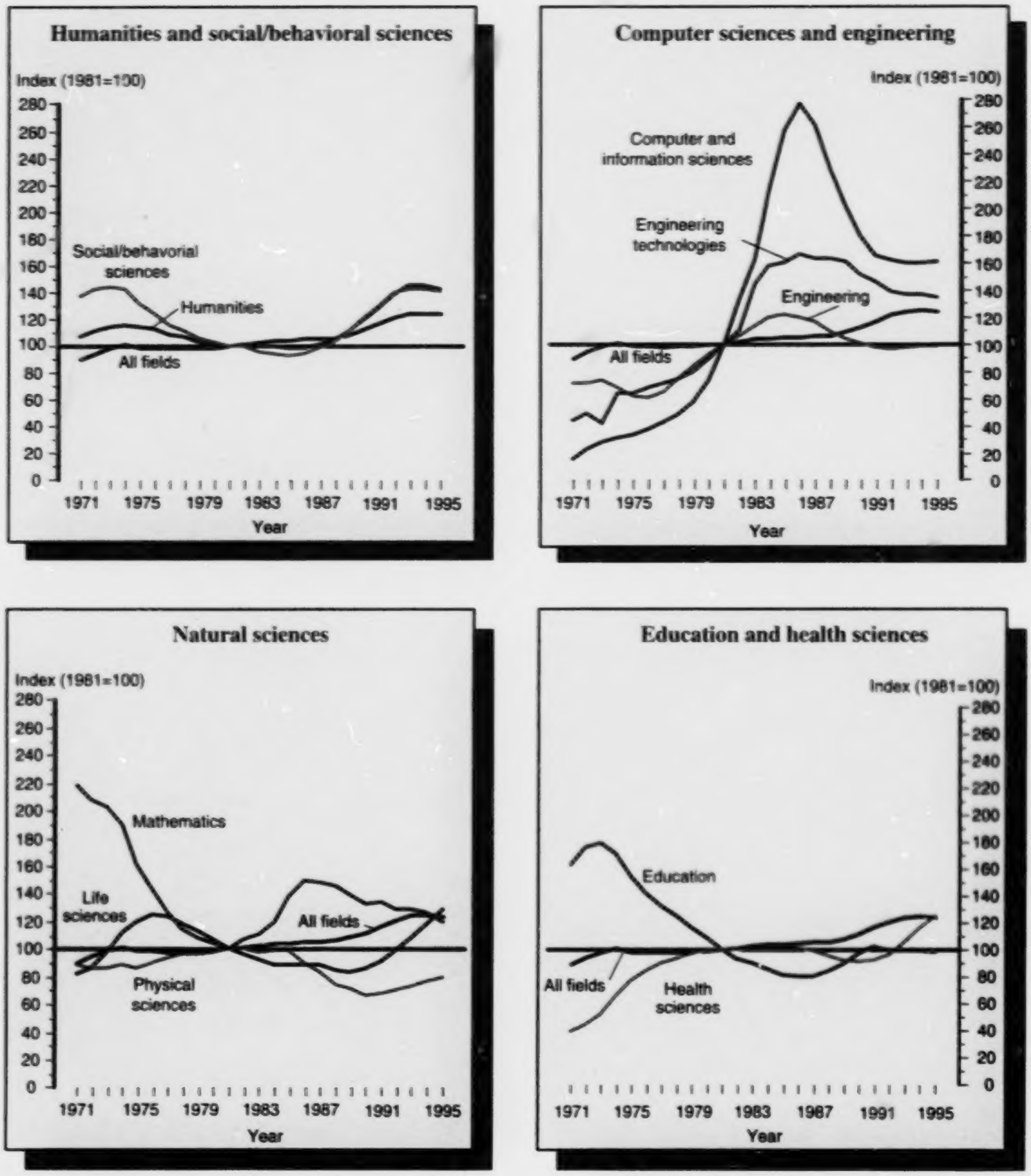
Index of the number of bachelor's degrees conferred and the percentage distribution of total bachelor's degrees conferred, by field of study: Academic years ending 1971–95

Field of study	1971	1976	1981	1986	1991	1992	1993	1994	1995
				Index of the number of degrees (1981=100)					
All fields	**89.8**	**99.0**	**100.0**	**105.6**	**117.0**	**121.5**	**124.6**	**125.0**	**124.1**
Humanities	107.1	112.4	100.0	99.0	128.6	138.7	145.1	145.1	143.5
Social/behavioral sciences	136.7	124.8	100.0	95.0	129.8	139.5	143.0	143.3	141.4
Life sciences	82.7	125.6	100.0	89.1	91.5	99.4	108.8	118.9	129.5
Physical sciences	89.4	89.6	100.0	90.7	68.2	70.8	73.3	76.8	80.1
Mathematics	218.1	142.8	100.0	150.0	133.9	129.3	129.6	125.9	120.0
Computer and information sciences	15.8	37.4	100.0	277.0	165.9	162.4	160.0	160.0	161.4
Engineering	70.9	60.7	100.0	120.4	97.2	96.7	97.9	98.3	98.5
Engineering technologies	44.0	67.8	100.0	165.9	146.2	139.5	137.3	136.6	135.0
Education	163.1	142.9	100.0	80.6	102.5	99.9	99.7	99.6	98.2
Business management	57.7	71.4	100.0	119.3	125.3	129.0	129.1	124.0	117.8
Health sciences	39.6	84.8	100.0	101.2	92.8	97.0	105.4	116.9	125.5
Other technical/professional	43.2	86.6	100.0	97.3	109.2	119.4	124.7	127.6	128.6
				Percentage distribution of total degrees					
All fields	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Humanities	17.1	16.3	14.3	13.4	15.7	16.3	16.7	16.6	16.6
Social/behavioral sciences	23.0	19.1	15.1	13.6	16.8	17.4	17.4	17.4	17.3
Life sciences	4.3	5.9	4.6	3.9	3.6	3.8	4.0	4.4	4.8
Physical sciences	2.5	2.3	2.6	2.2	1.5	1.5	1.5	1.6	1.7
Mathematics	3.0	1.8	1.2	1.7	1.4	1.3	1.3	1.2	1.2
Computer and information sciences	0.3	0.6	1.6	4.2	2.3	2.2	2.1	2.1	2.1
Engineering	5.3	4.1	6.8	7.7	5.6	5.4	5.3	5.3	5.4
Engineering technologies	0.6	0.9	1.3	2.0	1.6	1.4	1.4	1.4	1.4
Education	21.0	16.7	11.6	8.8	10.1	9.5	9.3	9.2	9.1
Business management	13.7	15.3	21.3	24.0	22.8	22.6	22.0	21.1	20.2
Health sciences	3.0	5.9	6.8	6.5	5.4	5.4	5.8	6.4	6.9
Other technical/professional	6.2	11.2	12.8	11.8	12.0	12.6	12.9	13.1	13.3

NOTE: The index of the number of bachelor's degrees conferred is calculated as the number of degrees conferred in a given field of study divided by the number of degrees conferred in the same field in 1981. A value greater than 100 indicates that more bachelor's degrees were conferred in that field of study in that year than in 1981, while a value less than 100 indicates that fewer bachelor's degrees were conferred in that field in that year than in 1981. Details may not add to totals due to rounding. See the supplemental note to this indicator for a description of the fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on IPEDS/HEGIS "Completions" surveys).

Index of the number of bachelor's degrees conferred, by fields of study: Academic years ending 1971–95



NOTE: See the supplemental note to this indicator for a description of the fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on IPEDS/HEGIS "Completions" surveys).

Economic and Other Outcomes of Education

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Economic and Other Outcomes of Education

Economic outcomes, such as wage and salary levels, historically have been determined by the educational attainment of individuals and the skills employers expect of those entering the labor force. Recently, both individuals and society as a whole have placed increased emphasis on educational attainment as the workplace has become increasingly technological and employers now seek employees with the highest level of skills. For prospective employees, the focus on higher level skills means investing in learning or developing skills through education. Like all investments, developing higher level skills involves costs and returns (benefits).

The cost to the student of attending college is high because it includes tuition, books, fees, and the earnings that the student gives up either by not working at all during college or by working part time. There are also costs associated with upgrading the skills of employees already in the labor force: these costs include reduced discretionary income and lost leisure time.

Returns, or benefits, of investing in education come in many forms. While some returns accrue for the individual, others benefit society and the Nation in general. Returns related to the individual include higher earnings, better job opportunities, and jobs that are less sensitive to general economic conditions. Returns related to the economy and society include reduced reliance on welfare subsidies, increased participation in civic activities, and greater productivity.

Over time, as the costs and returns of developing skills through education change, the incentive for individuals to participate in education also changes. This section presents measures that illustrate the rewards of completing high school and the rewards of investing in postsecondary education.

Immediate transition from high school to work

The difficulty of making the immediate transition from high school to full-time work appears much greater for those who leave high school before graduating. Without prior job experience or specialized training, school leavers may have difficulty finding jobs that they are willing to take. In October 1996, 59 percent of recent high school completers who were not enrolled in college were employed, compared to 42 percent of recent high school dropouts. The employment rates of high school completers vary by racial/ethnic group, however. For example, white recent high school completers not enrolled in college were more likely to be employed than their black peers (*Indicator 30*).

The rewards of college attendance and graduation

The decision to attend college is often influenced by the desire for better employment opportunities and greater earnings potential, and college graduates are more likely to be employed than individuals with less education. For example, in 1997, 93 percent of males ages 25–34 who had a bachelor's degree were employed, compared to 73 percent of their peers with 9–11 years of education. Between 1971 and 1997, the percentage of males ages 25–34 who were employed decreased for those who had not finished high school and those with a high school diploma or GED, and remained similar for those with some college and those with a bachelor's degree. For females ages 25–34, the percentage of those who were employed increased for every level of educational attainment. However, the percentage of females with a high school diploma, GED, or higher who were employed increased at a faster rate than the percentage of females with less than a high school diploma or GED (*Indicator 31*).

The earnings returns of attending and completing high school become evident when comparing the ratio of the median annual earnings of those who attended and completed high school to the median annual earnings of those who did not complete high school. For example, in 1996, the median annual earnings ratios for males and females ages 25–34 who had not completed high school were 31 and 36 percent lower, respectively, than the median annual earnings ratios of their peers who had done so. Similar earnings disparities were noted between the median annual earnings of high school and college graduates. Between 1980 and 1996, for example, the earnings advantage of earning a bachelor's degree or higher increased for males, from 19 to 54 percent (*Indicator 32*).

When students decide what to study in college, they often think about the possibilities of earning a job related to their major, and the earnings potential associated with that job. The median starting salary for 1993 bachelor's degree recipients working full time and not enrolled in school was about $24,000. Graduates who majored in computer sciences and engineering had much higher starting salaries than graduates from all other fields of study. Among 1993 bachelor's degree recipients, females were more likely than males to major in education, and males were more likely than females to major in computer sciences and engineering. The most common field of study for both males and females was business, and the starting salary benefits for those who majored in this field increased between 1986 and 1993 (*Indicator 33*).

Welfare recipiency

The benefits of education to the individual include a higher income and greater likelihood of employment. Higher levels of education also correspond to lower rates of welfare recipiency. For example, in 1996, 25- to 34-year-olds who had dropped out of high school (those who had completed 9–11 years of school) were nearly three times as likely as high school completers who had not gone to college to receive income from Aid to Families with Dependent Children (AFDC) or other public assistance programs. In general, white and Hispanic 25- to 34-year-olds who had dropped out of high school were less likely than their black peers to receive AFDC or public assistance income between 1972 and 1996 (*Indicator 34*).

Participation in civic activities

Education plays a vital role in preparing individuals to participate actively in the political, economic, and social aspects of their communities. For instance, more education may increase a person's sense of responsibility to be informed of national and state issues, to participate in community service activities, or to be a member of organizations. The extent to which adults with varying levels of education participate in civic activities may be an indication of the relationship between educational attainment and exercising civic responsibility.

There was a positive relationship between the educational attainment of adults and their participation in civic activities: as adults' educational attainment increased, so did their rate of participation in civic activities such as being a member of an organization (for example, a community or church group) and participating in ongoing community service (*Indicator 35*). Adults with less than a high school diploma or GED were more likely than adults with a high school diploma, GED, or higher to report that they hardly ever read a newspaper. However, similar percentages of adults at all education levels reported that they watched national news on television at least once a week (table 35-1).

Transition from high school to work

The transition from high school to work can be difficult. Without prior job experience or specialized training, school leavers may have difficulty finding jobs they are willing to take. The employment rate among school leavers, both those who have not finished high school and those who have finished but have not gone on to college, indicates the difficulty of making this transition.

- In 1996, 59 percent of recent high school completers not enrolled in college were employed, compared to 42 percent of recent high school dropouts.
- Between 1989 and 1996, the percentage of recent high school completers not enrolled in college who were employed decreased from 72 to 59 percent. However, between 1989 and 1996, the percentages of recent school dropouts not enrolled in college who were employed remained about the same.
- In 1996, white recent high school completers not enrolled in college were more likely to be employed than their black counterparts.
- White recent high school completers were more likely to be employed than white recent school dropouts in 1996. Likewise, black recent high school completers were more likely to be employed than black recent school dropouts.
- Although the gap in the employment rates of male and female recent high school completers not enrolled in college narrowed between 1960 and 1996, males generally were more likely to be employed than females (see supplemental table 30-1).

Employment rates for recent high school completers not enrolled in college and for recent school dropouts, by race/ethnicity: October 1972–96

	Recent high school completers not enrolled in college				Recent school dropouts			
October	Total[1]	White	Black	Hispanic	Total[1]	White	Black	Hispanic
1972	70.1	73.5	48.3	([2])	46.8	47.0	42.8	([2])
1974	69.1	72.9	46.0	56.2	49.3	53.9	36.2	49.9
1976	68.8	73.1	38.6	65.3	44.8	49.6	20.9	52.7
1978	74.9	79.0	45.8	67.8	51.2	54.2	22.3	56.1
1980	68.9	74.6	34.7	62.3	44.6	51.2	20.9	52.2
1982	60.4	68.4	29.3	56.6	38.0	44.6	16.2	45.5
1984	64.0	70.7	44.8	55.4	44.0	51.4	24.2	41.0
1986	65.2	71.5	41.1	53.7	48.0	50.4	31.5	41.0
1988	71.9	78.2	55.8	53.6	43.6	47.6	17.6	44.7
1989	71.7	77.6	53.7	54.6	46.7	57.6	26.4	42.1
1990	67.8	75.0	45.2	56.3	46.3	56.3	30.9	39.9
1991	59.6	67.0	32.3	57.9	36.8	38.6	24.7	36.2
1992	62.7	71.9	37.0	53.2	36.2	43.1	([3])	41.4
1993	64.2	71.8	42.3	47.7	46.9	52.6	27.1	34.5
1994	64.2	73.1	38.0	43.7	42.9	51.7	34.1	41.2
1995	63.1	71.4	51.5	43.0	47.7	51.6	33.5	43.9
1996	59.0	68.5	41.7	([2])	42.3	45.3	21.5	([2])

[1] Included in the totals but not shown separately are recent high school completers not enrolled in college and recent school dropouts from other racial/ethnic groups.

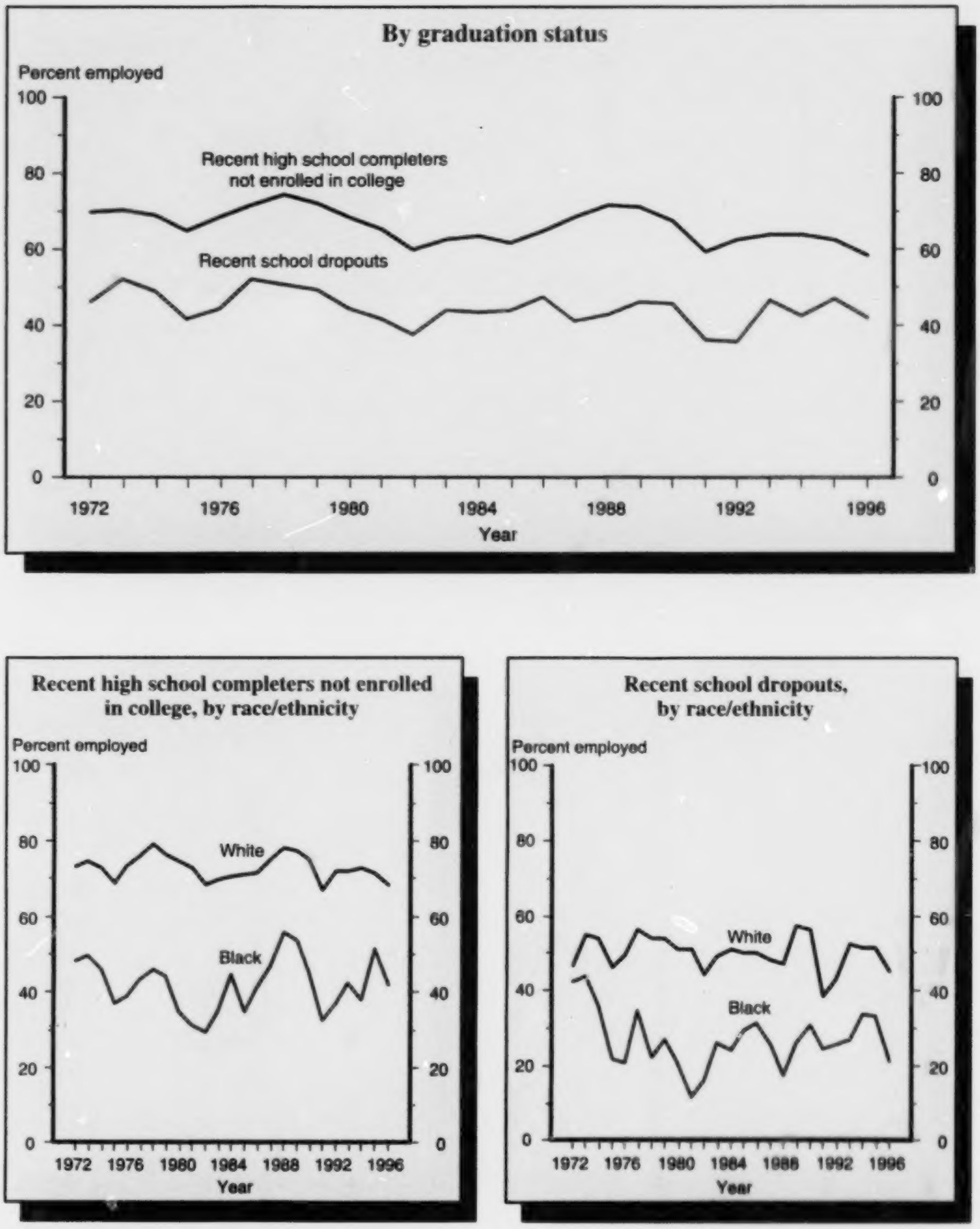
[2] Due to the small sample sizes for the Hispanic category, 3-year averages were calculated. For example, the 3-year average for 1995 is the average percentage of recent high school completers not enrolled in college or recent school dropouts in 1994, 1995, and 1996. Thus, 3-year averages cannot be calculated for 1972 and 1996.

[3] Too few sample observations for a reliable estimate.

NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent school dropouts are individuals ages 16–24 who did not complete high school, who were not enrolled during the survey month, and who were in school 12 months earlier.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Employment rates for recent high school completers not enrolled in college and for recent school dropouts: October 1972–96



NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent school dropouts are individuals ages 16–24 who did not complete high school, who were not enrolled during the survey month, and who were in school 12 months earlier. There were too few sample observations for a reliable estimate of black recent school dropouts in 1992.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Employment of young adults

The rate of employment within a population group is affected by a variety of factors. Some factors influence the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, while others influence the willingness of individuals to take jobs at this wage rate. The percentage of young adults who are employed is an indication of the advantages employment offers to these individuals relative to other pursuits.

- Generally, between 1971 and 1997, the percentage of 25- to 34-year-olds who were employed was higher among those individuals with a higher level of education. In 1997, male and female college graduates ages 25–34 were more likely to be employed than their counterparts who did not finish high school.

- Between 1971 and 1997, the percentage of males ages 25–34 who were employed decreased for those who had not finished high school and those with a high school diploma or GED, and remained similar for those with some college and those with a bachelor's degree. The percentage of females ages 25–34 who were employed increased for every level of educational attainment.

- In 1997, the percentage of females ages 25–34 who were employed was higher than that in 1971, regardless of education level. However, the percentage of females with a high school diploma, GED, or higher who were employed increased at a faster rate than the percentage of females with less than a high school diploma or GED.

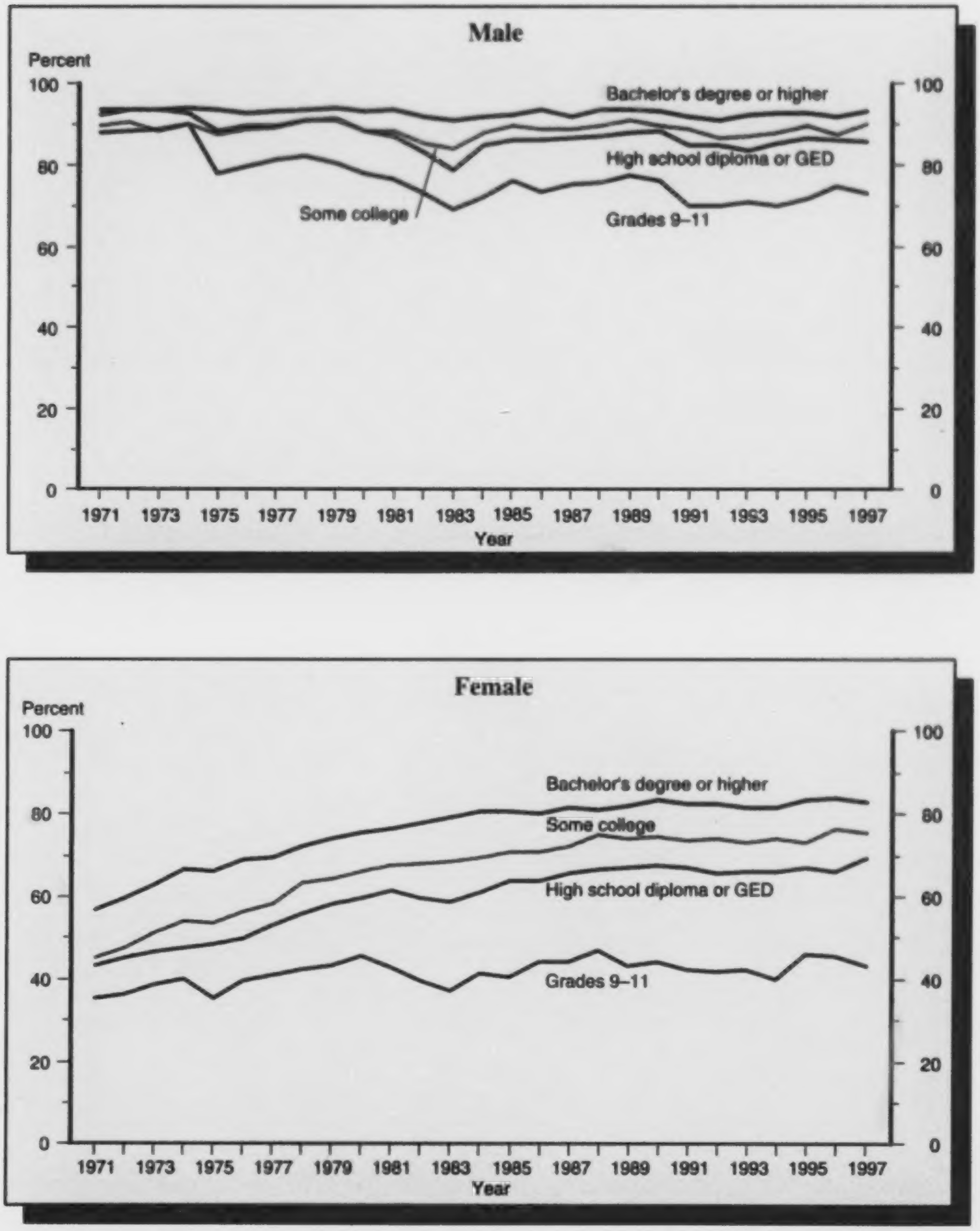
Percentage of 25- to 34-year-olds who were employed, by sex and years of school completed: March 1971–97

	Male				Female			
March	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher
1971	87.9	93.6	89.9	92.5	35.4	43.1	44.9	56.9
1973	88.8	93.8	88.5	93.5	38.4	46.5	51.0	62.7
1975	78.0	88.4	87.7	93.5	35.4	48.1	53.6	66.3
1977	81.5	89.5	89.1	93.3	41.0	53.0	58.0	69.5
1979	80.5	91.3	90.9	94.1	43.2	58.0	64.2	74.0
1981	76.7	86.9	88.5	93.7	42.7	61.3	67.6	76.4
1983	69.3	78.6	83.8	91.1	37.1	58.8	68.3	79.2
1985	76.1	86.1	89.7	92.2	40.3	63.9	71.0	80.6
1987	75.0	86.8	89.0	92.1	44.0	65.6	72.2	81.4
1989	77.6	87.8	91.1	93.7	43.0	66.9	74.0	82.1
1990	76.0	88.6	89.7	93.0	44.4	67.5	74.5	83.2
1991	69.9	84.9	88.6	91.8	42.3	67.0	73.5	82.6
1992	69.9	84.7	86.7	90.9	41.7	65.4	74.0	82.5
1993	71.0	83.6	87.2	92.3	42.2	66.0	73.0	81.6
1994	70.0	85.2	88.0	92.8	40.1	66.2	74.3	81.6
1995	71.8	86.6	89.6	92.9	45.8	67.2	73.0	83.4
1996	74.9	86.3	87.6	92.1	45.5	66.3	76.4	83.7
1997	73.0	85.6	90.0	93.0	43.1	69.6	75.3	83.1

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage of 25- to 34-year-olds who were employed, by sex and years of school completed: March 1971–97



NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Annual earnings of young adults, by educational attainment

Wages and salaries are influenced by many factors, including the employer's perception of the productivity and availability of workers with different levels of education and the economic conditions in the industries that typically employ workers with different levels of education. Annual earnings are influenced by the number of weeks worked in a year and the usual hours worked each week. The ratio of annual earnings of high school dropouts or college graduates to the annual earnings of high school completers is affected by all of these factors: it is a measure of the earnings disadvantage of not finishing high school and the earnings advantage of completing college.

- In 1996, the median annual earnings of young adults ages 25–34 who had not completed high school were substantially lower than those of their counterparts who had completed high school (31 and 36 percent lower for males and females, respectively). Young adults who had completed a bachelor's degree or higher earned substantially more than those who had earned no more than a high school diploma or GED (54 and 88 percent more for males and females, respectively).
- Between 1980 and 1996, the earnings advantage of obtaining a bachelor's degree or higher increased for males, rising from 19 to 54 percent.
- Since 1980, the earnings advantage of 25- to 34-year-olds with some college or a bachelor's degree or higher (relative to their counterparts who had completed high school) was generally greater for females than for males.

Ratio* of median annual earnings of wage and salary workers ages 25–34 whose highest education level was grades 9–11, some college, and a bachelor's degree or higher to those with a high school diploma or GED, by sex: 1970–96

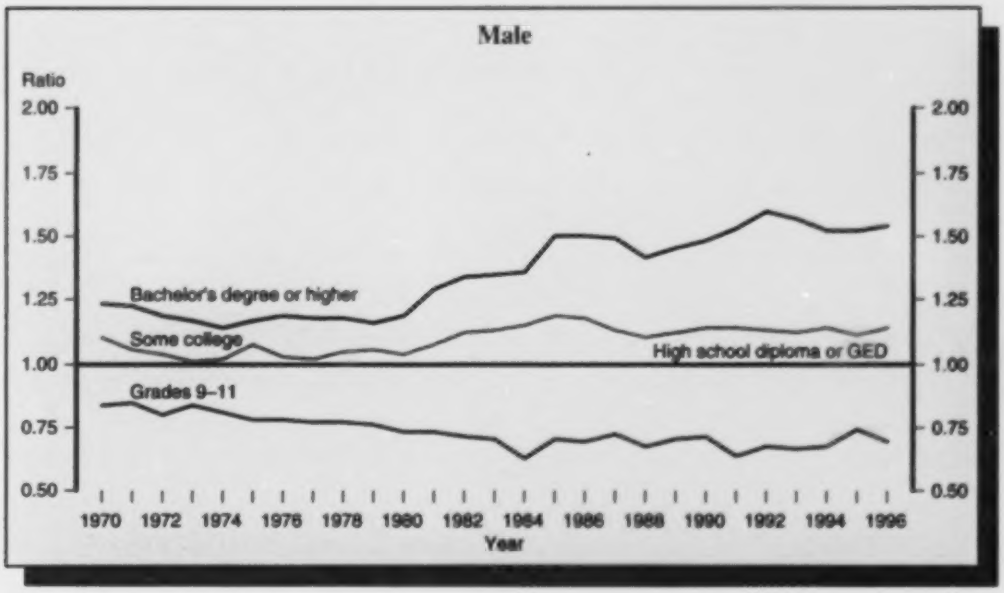
	Grades 9–11		Some college		Bachelor's degree or higher	
Year	Male	Female	Male	Female	Male	Female
1970	0.84	0.69	1.10	1.19	1.24	1.68
1972	0.80	0.70	1.04	1.16	1.19	1.63
1974	0.81	0.62	1.02	1.19	1.14	1.74
1976	0.78	0.61	1.03	1.14	1.19	1.58
1978	0.77	0.54	1.05	1.17	1.18	1.55
1980	0.73	0.65	1.04	1.24	1.19	1.52
1982	0.71	0.66	1.12	1.21	1.34	1.63
1984	0.63	0.56	1.15	1.21	1.36	1.61
1986	0.69	0.65	1.18	1.21	1.50	1.78
1988	0.68	0.56	1.10	1.31	1.42	1.81
1990	0.71	0.58	1.14	1.34	1.48	1.92
1991	0.64	0.64	1.14	1.32	1.53	1.90
1992	0.68	0.76	1.13	1.34	1.60	2.00
1993	0.67	0.59	1.12	1.31	1.57	1.99
1994	0.68	0.58	1.14	1.20	1.52	1.86
1995	0.74	0.62	1.11	1.28	1.52	1.91
1996	0.69	0.64	1.14	1.27	1.54	1.88

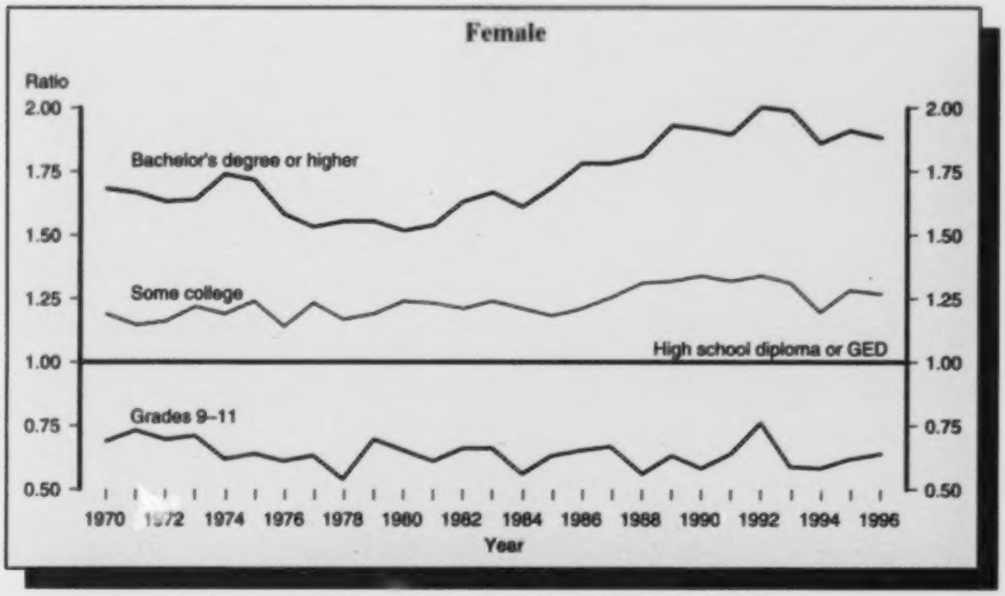
* This ratio is most useful when compared to 1.0. For example, the ratio of 1.54 in 1996 for males whose highest education level was a bachelor's degree or higher means that they earned 54 percent more than males who had a high school diploma or GED. The ratio of 0.69 in 1996 for males whose highest education level was grades 9–11 means that they earned 31 percent less than males who had a high school diploma or GED.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Ratio* of median annual earnings of wage and salary workers ages 25–34 whose highest education level was grades 9–11, some college, and a bachelor's degree or higher to those with a high school diploma or GED, by sex: 1970–96





* This ratio is most useful when compared to 1.0. For example, the ratio of 1.54 in 1996 for males whose highest education level was a bachelor's degree or higher means that they earned 54 percent more than males who had a high school diploma or GED. The ratio of 0.69 in 1996 for males whose highest education level was grades 9–11 means that they earned 31 percent less than males who had a high school diploma or GED.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Starting salaries of college graduates

One of the values that students place on the field of study they choose for their bachelor's degree is the earning potential associated with occupations in that field. Starting salaries offered by employers are related not only to the value of the skills learned by college graduates but also to the supply of qualified individuals. Thus, differences in starting salaries shed light on the changing demands of the labor market and the response of students and the education system to those changes.

- Between 1977 and 1993, college graduates who majored in computer sciences and engineering had much higher starting salaries than did graduates in all other fields of study; while the salary benefit of majoring in such fields was high, it declined between 1980 and 1993.

- Starting salaries among graduates who majored in the humanities or education have fluctuated over time, but in general, they were considerably lower than the starting salaries for all graduates.

- Among 1993 graduates, females were much more likely than males to major in education, and males were more likely than females to major in computer sciences and engineering. The most common field of study for both males and females was business; the starting salary benefits for those who majored in this field increased between 1986 and 1993.

- Median starting salaries for 1993 male graduates were substantially higher than those for female graduates, both overall and within certain fields of study including business, social and behavioral sciences, and natural sciences.

Percentage difference between median starting salaries for all college graduates and college graduates in major fields of study: Years of graduation 1977–93

	Year of graduation					
Major field of study	1977	1980	1984	1986	1990	1993
	Percent above or (below) median for all college graduates					
Humanities	(20.3)	(15.4)	(18.6)	(17.1)	(13.6)	(11.1)
Social and behavioral sciences	(10.6)	(11.4)	(12.6)	(8.8)	(9.4)	(9.0)
Natural sciences	(1.8)	(0.8)	(5.0)	(6.2)	(1.8)	(7.5)
Computer sciences and engineering	46.4	61.0	44.8	34.3	41.0	35.8
Education	(14.1)	(18.6)	(20.1)	(18.6)	(11.7)	(15.3)
Business and management	14.4	13.2	4.8	2.6	4.6	10.4
Other professional or technical	2.8	6.8	(1.3)	(2.9)	2.2	3.3

Annual median starting salaries (in 1997 constant dollars) of 1993 college graduates, by sex and major field of study, and the percentage difference between male and female starting salaries

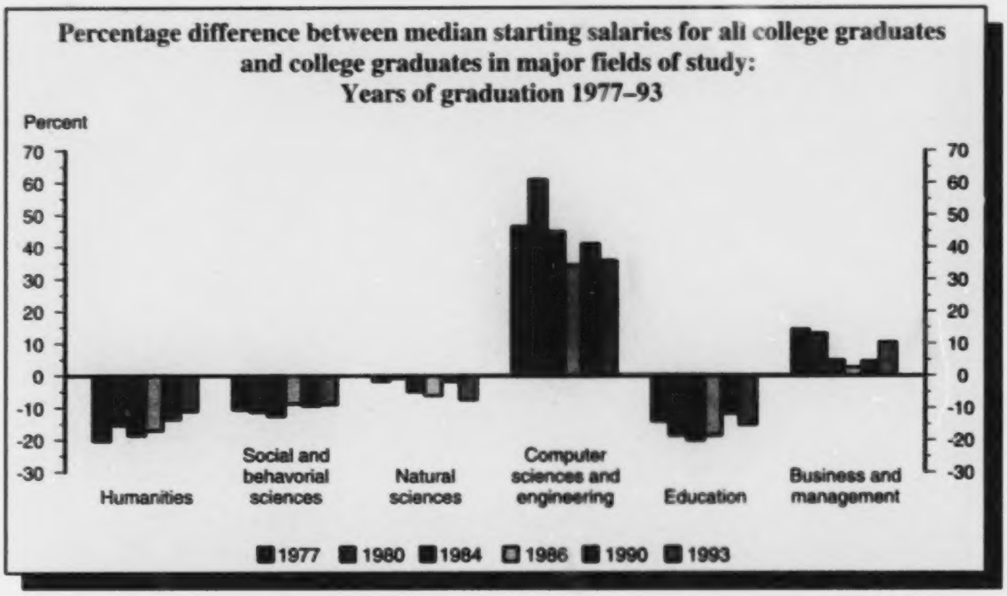
		Male		Female		
Major field of study	All graduates	Percentage in field	Median starting salary	Percentage in field	Median starting salary	Female/male percentage difference
Total	**$24,156**	**100**	**$26,738**	**100**	**$22,508**	***(15.8)**
Humanities	21,469	9	22,307	12	21,100	(5.4)
Social and behavioral sciences	21,984	13	23,885	15	21,061	*(11.8)
Natural sciences	22,347	7	24,798	6	20,991	*(15.3)
Computer sciences and engineering	32,802	16	33,148	3	30,866	(6.9)
Education	20,456	6	21,737	17	20,114	(7.5)
Business and management	26,658	32	28,382	23	24,363	*(14.2)
Other professional or technical	24,959	17	24,938	23	24,974	0.1

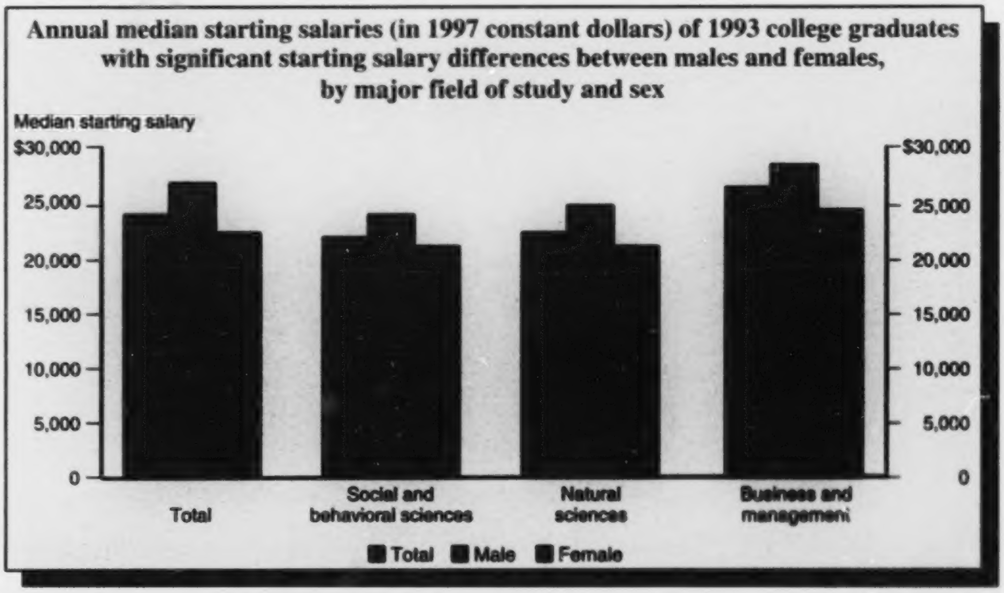
* Male starting salaries were greater than female salaries ($p < 0.05$).

NOTE: Data presented are for bachelor's degree recipients who were working full time and who were not enrolled in postsecondary education 1 year after graduation. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates surveys (1977–90) and 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

Starting salaries of college graduates


Percentage difference between median starting salaries for all college graduates and college graduates in major fields of study: Years of graduation 1977–93


Annual median starting salaries (in 1997 constant dollars) of 1993 college graduates with significant starting salary differences between males and females, by major field of study and sex

NOTE: Data presented are for bachelor's degree recipients who were working full time and who were not enrolled in postsecondary education 1 year after graduation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates surveys (1977–90) and 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

Welfare participation, by educational attainment

Public investment in education has many potential benefits for the Nation, including reduced reliance on welfare and public assistance programs among those who attain higher levels of education. The extent to which attaining higher levels of education reduces reliance on income maintenance programs is a measure of the social return of improving public education.

- In 1996, 25- to 34-year-olds who had dropped out of high school (those who had completed 9–11 years of school) were about three times as likely as high school completers who had not gone to college to receive income from Aid to Families with Dependent Children (AFDC) or public assistance income (12 versus 4 percent).
- Between 1986 and 1996, the percentages of 25- to 34-year-olds who received AFDC or public assistance remained similar for those who had dropped out of high school and those who had completed high school. During the same period, the percentage of 25- to 34-year-olds with 13–15 years of school who received AFDC or public assistance income increased slightly.
- In general, white and Hispanic 25- to 34-year-olds who had dropped out of high school were less likely than their black counterparts to receive AFDC or public assistance income between 1972 and 1996.

Percentage of 25- to 34-year-olds who received income from AFDC or other public assistance programs, by years of school completed and race/ethnicity: 1972–96

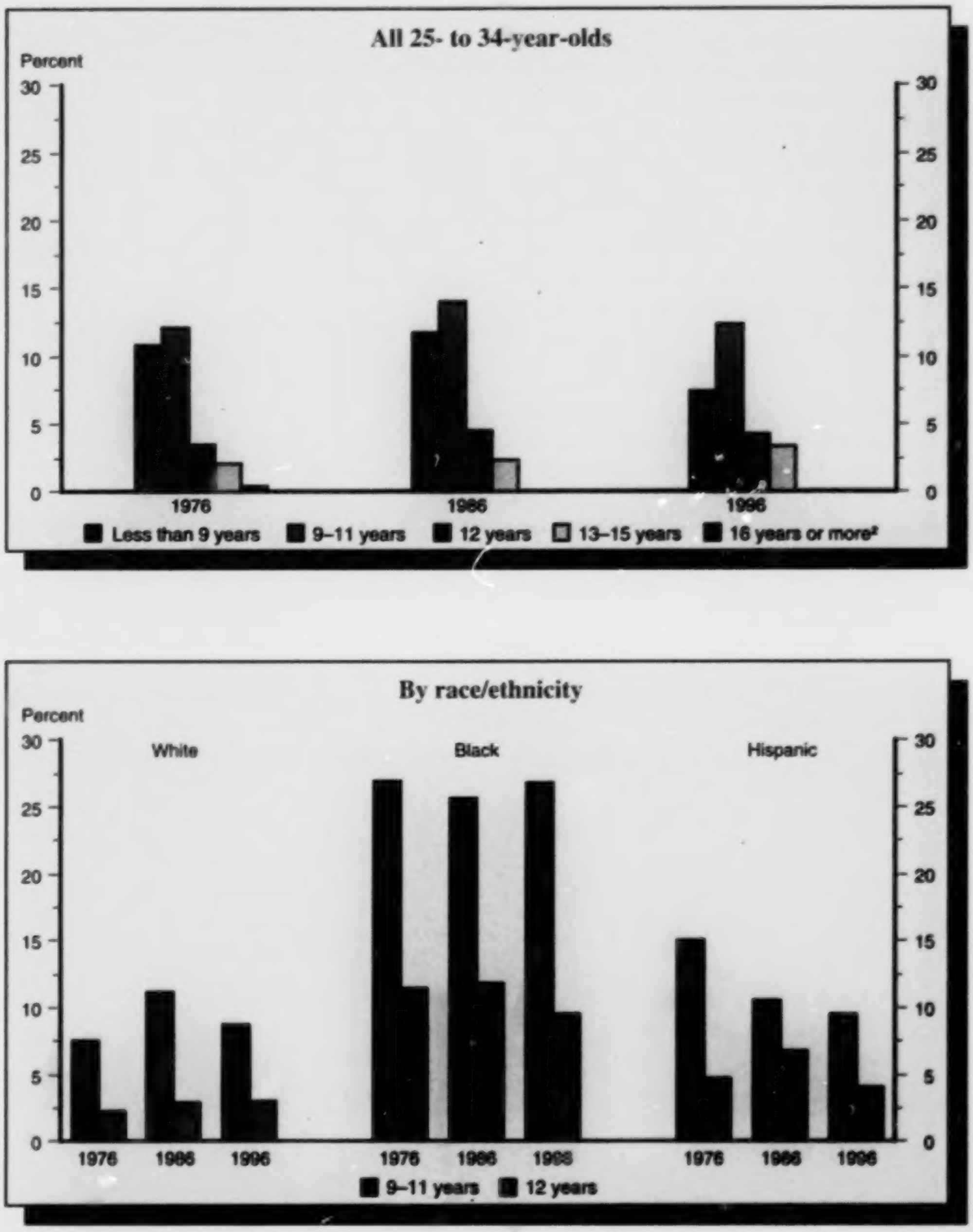
	Years of school completed											
	All 25- to 34-year-olds						White		Black		Hispanic	
Year*	All levels	Less than 9 years	9–11 years	12 years	13–15 years	16 years or more	9–11 years	12 years	9–11 years	12 years	9–11 years	12 years
1972	4.0	11.5	9.7	3.2	1.5	0.4	6.0	2.2	23.2	12.2	9.6	3.4
1973	3.9	11.7	10.3	3.3	1.7	0.6	5.6	2.1	25.9	12.1	16.2	5.5
1974	4.3	15.0	11.7	3.3	2.0	0.8	8.0	2.4	25.0	10.7	14.2	3.8
1975	3.6	11.3	11.0	3.3	1.5	0.3	7.0	2.4	27.8	10.0	10.6	3.4
1976	3.8	10.9	12.2	3.5	2.1	0.4	7.5	2.3	27.0	11.4	15.0	4.7
1977	3.9	11.7	12.0	3.9	2.1	0.3	8.0	2.6	26.4	12.4	13.1	6.6
1978	3.9	10.8	12.7	3.6	2.5	0.4	7.7	2.3	28.1	12.4	13.7	6.9
1979	3.9	12.4	12.8	3.8	2.1	0.6	7.9	2.5	26.8	12.0	15.1	5.4
1980	4.2	11.8	12.7	4.4	2.5	0.4	8.5	3.2	25.3	12.9	14.2	4.5
1981	4.4	11.5	13.6	4.6	2.7	0.5	9.5	2.9	29.1	14.9	13.3	5.0
1982	4.0	9.6	14.1	4.3	2.1	0.3	10.3	2.6	25.8	13.6	14.2	5.4
1983	4.2	11.4	14.7	4.3	2.5	0.3	10.7	2.6	26.8	13.4	15.5	5.2
1984	4.3	13.2	14.9	4.2	2.4	0.8	10.6	2.7	30.3	12.6	10.6	5.7
1985	4.2	11.8	14.0	4.4	2.6	0.4	9.5	3.1	30.7	11.7	13.2	5.2
1986	4.2	11.8	14.1	4.5	2.4	0.3	11.2	2.9	25.7	11.8	10.6	6.8
1987	4.2	13.2	12.5	4.5	2.5	0.3	7.8	2.9	28.5	12.4	10.7	5.9
1988	4.0	11.5	13.8	4.2	2.1	0.2	9.2	2.8	28.9	11.6	14.0	4.8
1989	3.9	8.8	13.4	4.1	2.4	0.4	8.5	2.9	30.3	10.9	12.0	4.4
1990	4.4	8.9	15.1	4.7	2.5	0.5	10.6	3.2	30.9	13.0	13.2	5.3
1991	5.0	11.4	16.0	5.5	3.1	0.5	11.9	4.0	28.6	13.1	15.1	6.0
1992	5.1	9.9	17.1	5.6	3.7	0.5	11.3	4.0	35.6	13.2	15.0	7.2
1993	5.3	9.6	16.2	6.3	3.7	0.4	11.5	3.8	31.3	15.9	14.6	8.2
1994	4.9	8.3	14.3	5.8	4.4	0.4	10.0	4.2	29.9	12.9	10.6	5.4
1995	4.4	9.1	12.4	5.2	4.1	0.3	7.8	3.7	29.9	11.6	9.6	5.6
1996	3.8	7.4	12.4	4.3	3.4	0.4	8.7	3.1	26.8	9.5	9.5	4.1

* Respondents were asked how much AFDC or public assistance income they received during the previous calendar year. The "Year" column reflects the calendar year rather than the survey year.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Included in "All 25- to 34-year-olds" but not shown separately are those from other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage of 25- to 34-year-olds who received income from AFDC or other public assistance programs, by years of school completed: 1976, 1986, and 1996[1]



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[1] Respondents were asked how much AFDC or public assistance income they received during the previous calendar year. The "Year" labels on the graphs reflect the calendar year rather than the survey year.

[2] In 1986 and 1996, the percentages of 25- to 34-year-olds who had completed 16 or more years of school and had received AFDC or public assistance income were less than 1.0; therefore, the percentages are not presented in the graph.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Adult civic involvement

Education plays a vital role in preparing individuals to participate actively in the political, economic, and social aspects of their communities. For instance, more education may increase a person's sense of responsibility to be informed of national and state issues, to participate in community service activities, or to be a member of organizations. The extent to which adults with varying levels of education participate in civic activities may be an indication of the relationship between educational attainment and exercising civic responsibility.

- In 1996, 74 percent of all adults reported voting in a national or state election in the past 5 years, while 59 percent reported being a member of an organization and 39 percent reported participating in ongoing community service.
- There was a positive relationship between the educational attainment of adults and their participation in civic activities: as adults' educational attainment increased, so did their rate of participation in civic activities such as being a member of an organization (for example, a community or church group) and participating in ongoing community service.
- In 1996, white adults were more likely than black adults to have voted in a national or state election in the past 5 years. However, blacks were just as likely as whites to be members of an organization and to participate in an ongoing community service activity.
- In 1996, parents with children age 18 or younger were more likely to report having attended a public meeting in the past 12 months and participating in ongoing community service activities than adults who did not have children age 18 or younger.
- Adults with less than a high school diploma were more likely than adults with a high school diploma, GED, or higher to report that they hardly ever read a newspaper. However, similar percentages of adults at all education levels reported that they watched national news on television at least once a week (see supplemental table 35-1).

Percentage of adults who reported participating in civic activities, by type of activity and selected characteristics: 1996

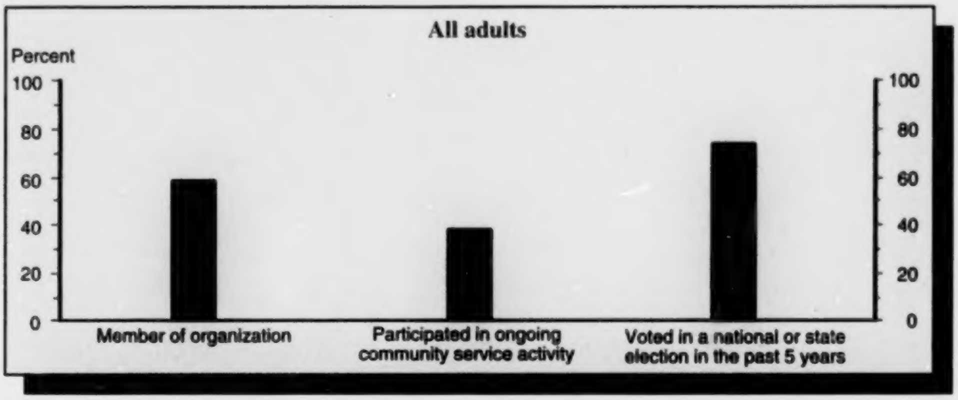
				Performed activity in the previous 12 months		
Selected characteristics	Member of organization (community group, church, etc.)	Participated in ongoing community service activity	Voted in a national or state election in the past 5 years	Contributed money to a candidate, political party, or political cause	Worked for pay/ volunteered for a candidate, political party, or political cause	Attended public meeting
Total	**58.7**	**38.7**	**74.4**	**14.8**	**5.6**	**28.3**
Highest education level						
Less than high school diploma	44.8	19.2	51.3	6.8	3.3	12.7
High school diploma or GED	53.7	36.7	71.7	12.3	4.4	26.2
Some college/vocational/technical	59.5	46.3	84.9	16.3	5.0	34.5
Bachelor's degree	74.2	51.2	91.3	23.1	10.0	38.4
Graduate/professional school	85.3	54.2	89.7	28.4	9.8	43.7
Race/ethnicity[1]						
White	59.9	38.5	79.9	15.2	5.3	28.4
Black	64.7	45.2	70.1	17.4	8.6	29.7
Hispanic	40.3	31.0	38.3	10.7	2.8	20.0
Parent with child age 18 or younger[2]						
Yes	57.3	48.2	71.0	14.2	5.1	31.2
No	59.5	32.9	76.5	15.2	5.8	26.5

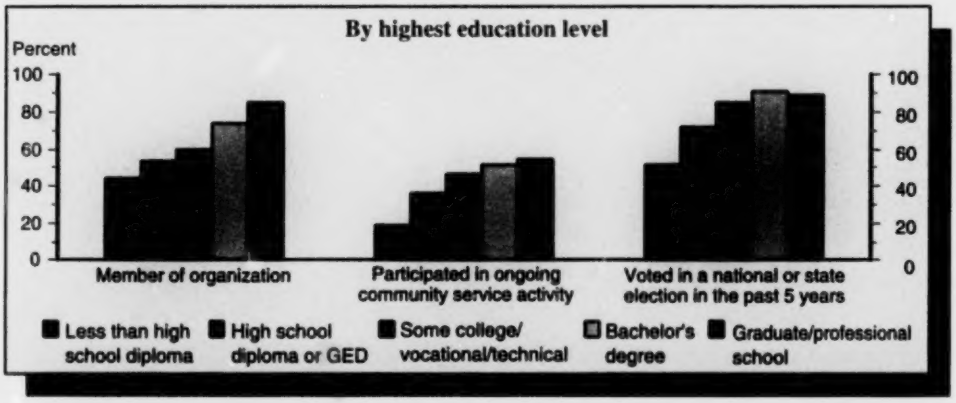
[1] Included in the totals but not shown separately are adults from other racial/ethnic groups.

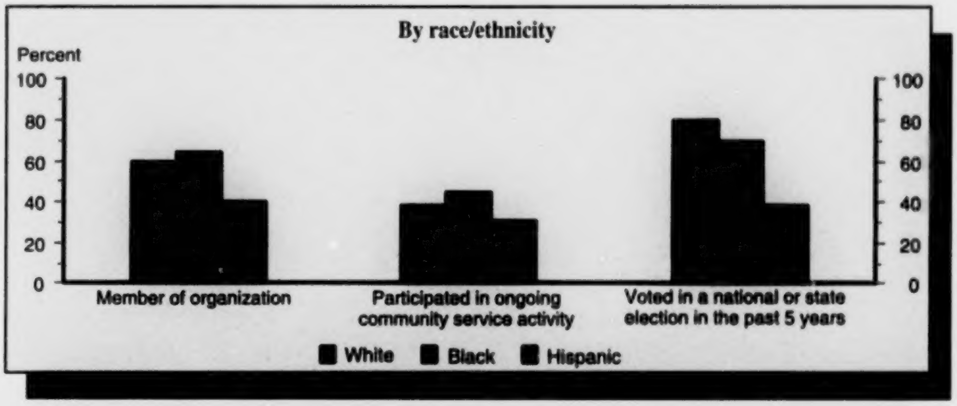
[2] Includes stepparents and guardians.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Adult Civic Involvement component).

Percentage of adults who reported participating in civic activities, by type of activity: 1996







SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Adult Civic Involvement component).

Organization and Management of Educational Institutions

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36 Types of [illegible]

37 Homework [illegible]

38 Instructional [illegible]

39 Teachers' participation [illegible]

40 Teaching workload [illegible]

41 Postsecondary faculty [illegible]

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Organization and Management of Educational Institutions

The effective organization and management of educational institutions is important to any nation's education system: it provides the framework upon which policymakers and educators build school standards and policies. School standards, such as the number of pupils in a classroom, and school practices, such as the role teachers play in school decision making, can have a large impact on how teachers organize their instructional time. Teachers' class size, instructional methods, and workload, as well as their influence over school and classroom policies, are all affected by the decisions that policymakers make about the organization and management of educational institutions.

Average class size

The organization and management of schools influence class size. Although the size of classes in public elementary and secondary schools did not change between the 1987–88 and 1993–94 school years, class size did vary depending upon school characteristics. For example, in the 1993–94 school year, public school teachers' average class size was slightly larger than that of their private school counterparts at both the elementary and secondary levels (24 versus 22 students and 24 versus 19 students, respectively) (Indicator 39, *Condition 1997*).

Homework

Homework is a tool that teachers use to help students review and practice what they have learned. In the school year 1994–95, at least 60 percent of public elementary teachers assigned routine exercises, reading, or short writing assignments to their students at least once a week, while less than 17 percent assigned written reports, problems with no obvious method of solution, or oral reports (*Indicator 36*).

While there is much debate on how effective homework assignments are, some argue that the most effective types of homework assignments are those that have a specific purpose, come with clear instructions, are fairly well matched to the student's abilities, and are designed to develop a student's knowledge and skills. In the school year 1994–95, public elementary teachers were more likely than private elementary teachers to assign problems for which there was no obvious method of solution, while private elementary teachers were more likely than their public school counterparts to assign routine exercises (*Indicator 36*).

In school year 1994–95, 49 percent of public elementary teachers and 58 percent of private elementary teachers reported that their students spent, on average, more than one hour on homework during the week. Six percent of public and 2 percent of private elementary teachers reported that their students spent no time on homework during the week (table 36-1).

Instructional methods

As a result of the educational reform movement, instructional methods have become the focus of many education debates. Many teachers have introduced teaching methods that use exercises to help build student knowledge rather than relying on those that require students to memorize facts. In the 1994–95 school year, 97 percent of public school teachers worked with individual students at least once a week, and 87 percent worked with small groups of students at least that often. To demonstrate a concept to their classes, 57 percent of public school teachers used a computer, videotape, or other electronic medium (Indicator 37, *Condition 1997*).

In the 1994–95 school year, public school teachers were more likely than private school teachers to work with small groups of students, while private school teachers were more likely than public school teachers to lecture their students. Elementary teachers were more likely than secondary teachers to work with small groups of students and to demonstrate concepts using a computer, videotape, or other electronic medium (Indicator 37, *Condition 1997*).

At the postsecondary level, instructional faculty and staff at the undergraduate level use a variety of methods to instruct students, make classroom assignments, and test students' competency. For example, in fall 1992, more than one-third of all instructional faculty and staff used teaching tools such as computational tools/software and computer aided instruction.

In addition to using computational tools, postsecondary instructional faculty and staff frequently use student presentations and term or research paper assignments as instructional methods. For example, in fall 1992, 63 percent of instructional faculty and staff assigned student presentations, and 53 percent assigned term or research papers. In terms of grading, postsecondary instructional faculty and staff were generally more likely to use competency-based grading than to grade on a curve. However, engineering and natural sciences faculty were more likely to grade on a curve than were education and humanities faculty (*Indicator 41*).

School decision making

Teachers have different perceptions of the amount of control they have over policies and classroom decisions. In the 1993–94 school year, a higher percentage of teachers perceived having a good deal of control over classroom decisions than perceived having a good deal of influence over their school's policies (ranging from 57 to 87 percent and 31 to 38 percent, respectively). Private school teachers were more likely than public school teachers to perceive having influence over their school's policies and having control over most of their classroom decisions.

With regard to specific school and classroom policies, about one-third of public school teachers perceived having a good deal of influence over setting school discipline policies and establishing curriculum. At least 85 percent of public school teachers perceived having a good deal of control over selecting teaching techniques, evaluating and grading students, and determining the amount of homework to be assigned (*Indicator 39*).

Teaching workload

Ongoing debates about teachers' salaries, instructional time, and other professional duties focus interest on how teachers spend their time. In the 1993–94 school year, full-time public school teachers reported working 45 hours per week, even though they were required to be at school 33 hours per week. Full-time public school teachers reported spending 12 extra hours before and after school and on weekends. Of these extra hours, one-fourth were spent in activities involving students. Teachers with less experience (those with 3 years or less of teaching experience) worked more total hours per week than did more experienced teachers (those with 4 or more years of teaching experience) (*Indicator 40*).

Time in the classroom

The amount of instructional time students receive in the classroom is one indicator of students' access to various learning opportunities. Instructional time for students can vary both between and within countries. Because time is a limited resource, the way in which teachers and students use this time is an important part of students' educational experience. In 1994, the United States reported the largest number of teaching hours per year across all school levels compared to seven other OECD countries. While U.S. teachers spent about the same number of hours teaching across all levels of education, teachers in most other OECD countries spent more hours teaching at the primary level than at the upper secondary level (*Indicator 38*).

In the United States, France, and Spain, nearly 70 percent or more of eighth-grade students spent 3.5 hours or more per week in mathematics class in 1995. In Germany, Ireland, and Sweden, no more than 15 percent of eighth-grade students spent more than 3.5 hours per week learning mathematics in school. The United States had one of the larger percentages of eighth-grade students (11 percent) spending five or more hours per week in mathematics classes. In 1995, fourth-grade students in the United States were more likely to spend three hours or more per week in science class (42 percent) than their peers in most other countries, with the exception of students in Thailand and Portugal, where more than 70 percent of fourth-graders spent at least three hours per week in science class (*Indicator 38* and table 38-1).

Types of homework assigned by elementary teachers

Homework is an important tool that teachers use to help students review and practice what they have learned, to teach children to work independently, and to encourage children to develop good habits and attitudes, such as self-discipline and responsibility. Some argue that the most effective types of homework assignments are those that have a specific purpose, come with clear instructions, are fairly well matched to a student's abilities, and are designed to develop a student's knowledge and skills.

- At least once a week in school year 1994–95, more than 60 percent of public elementary teachers assigned routine exercises, readings, or short writing assignments, while less than 17 percent assigned written reports, problems with no obvious method of solution, or oral reports.

- Public elementary teachers with 3 years or less of teaching experience were more likely than those with 4 or more years of teaching experience to ask students to apply concepts to different or unfamiliar situations, to write a journal entry, and to work on problems for which there was no obvious method of solution at least once a week during the 1994–95 school year.

- Public elementary teachers were more likely than private elementary teachers to assign problems for which there was no obvious method of solution, while private elementary teachers were more likely than their public counterparts to assign routine exercises.

- In school year 1994–95, 49 percent of public elementary teachers reported that their students spent, on average, more than one hour on homework during the week, while 58 percent of private elementary teachers reported that their students spent this amount of time on homework during the week. Six percent of public and 2 percent of private elementary teachers reported that their students spent no time on homework during the week (see supplemental table 36-1).

Percentage of elementary[1] teachers who reported assigning various types of homework at least once a week,[2] by control of school and years of teaching experience: School year 1994–95

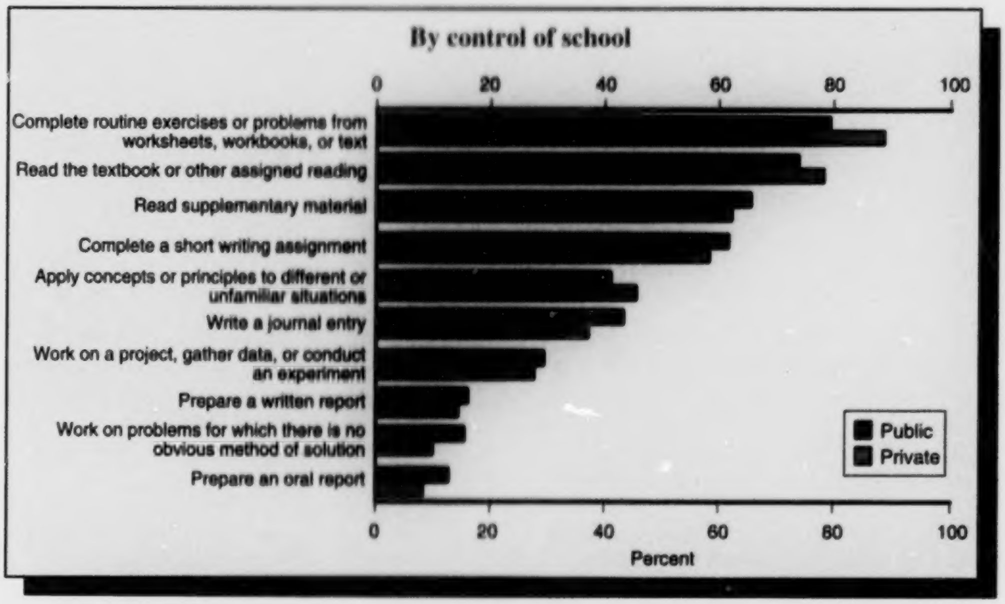
	Public			Private		
		Years of teaching experience			Years of teaching experience	
Type of homework assigned	Total	3 years or less	4 years or more	Total	3 years or less	4 years or more
Complete routine exercises or problems from worksheets, workbooks, or text	79.2	79.9	79.1	88.4	89.0	88.3
Read the textbook or other assigned reading	73.6	69.1	74.2	78.0	81.9	77.2
Read supplementary material	65.7	65.0	65.7	62.3	51.5	64.4
Complete a short writing assignment	61.9	62.8	61.7	58.2	57.4	58.4
Apply concepts or principles to different or unfamiliar situations	41.0	52.9	39.4	45.3	32.3	47.8
Write a journal entry	43.4	50.9	42.4	37.1	34.3	37.6
Work on a project, gather data, or conduct an experiment	29.3	25.8	29.8	27.7	21.6	28.9
Prepare a written report	16.5	17.9	16.3	14.8	10.2	15.7
Work on problems for which there is no obvious method of solution	15.5	23.3	14.5	10.0	10.2	9.9
Prepare an oral report	12.9	11.2	13.2	8.8	9.6	8.6

[1] Includes elementary teachers whose main assignment was teaching "general elementary" and who taught in both the 1993–94 and 1994–95 school years; therefore, new teachers were not included in this analysis. See the supplemental note to this indicator for further discussion.

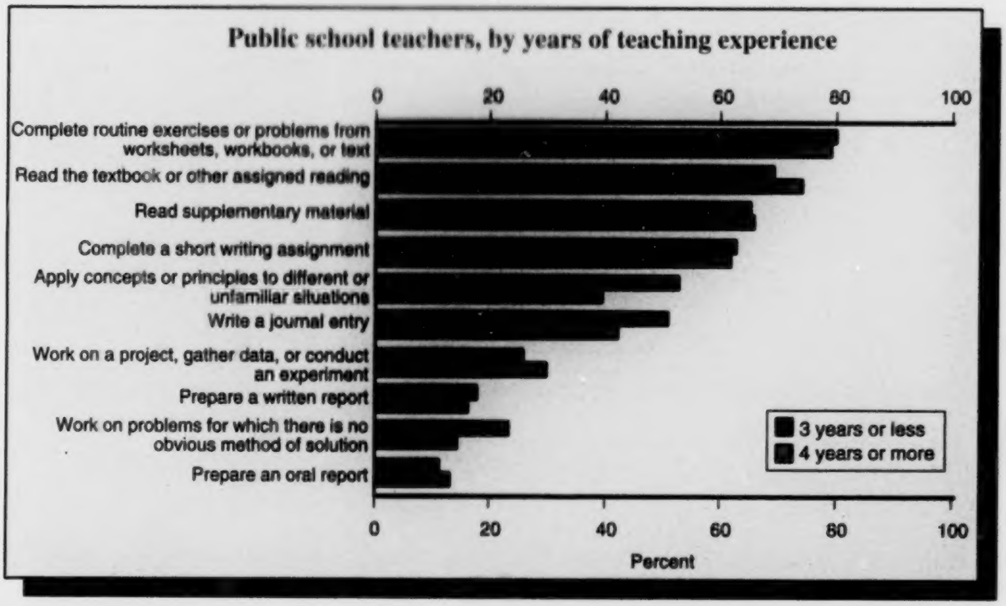
[2] Includes those teachers who responded "almost every day" and "once or twice a week."

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

Percentage of elementary[1] teachers who reported assigning various types of homework at least once a week:[2] School year 1994–95



By control of school



Public school teachers, by years of teaching experience

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[1] Includes elementary teachers whose main assignment was teaching "general elementary" and who taught in both the 1993–94 and 1994–95 school years; therefore, new teachers were not included in this analysis. See the supplemental note to this indicator for further discussion.

[2] Includes those teachers who responded "almost every day" and "once or twice a week."

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

Homework and television viewing

How students spend their time outside of school can have important implications for their academic achievement at school, as well as for their patterns of lifelong learning, and also provides an indication of parent involvement and teacher expectations. The amount of time students spend on homework is one measure of the effort students put into learning, and can be an important predictor of achievement. Conversely, watching television programs, most of which are non-educational, affects the time students have to study and to be involved in other extracurricular activities. Examining these two measures of out-of-school activity may explain some of the differences in achievement over time, among countries, and across different racial/ethnic groups.

- Between 1984 and 1996, there was little change in the percentage of students who reported spending less than one hour, one to two hours, or more than two hours per day on homework. However, the percentage of fourth-graders who did any homework was greater in 1996 than in 1984.

- Between 1984 and 1996, the percentage of students who reported watching at least four hours of television per day decreased, and the percentage of fourth- and eighth-graders who reported watching an hour or less of television per day increased.

- Comparisons among G-7 countries show that, in 1995, eighth-grade students in the United States and Canada spent similar amounts of time outside of school studying or doing homework. The percentage of eighth-graders in the United States who reported spending three hours or more a day on homework was slightly higher than that of their peers in Germany, but slightly less than their peers in France and Japan (see supplemental table 37-1).

Percentage distribution of students who reported spending time on homework, by grade and hours per day: 1984–96

Hours	Grade 4						Grade 8						Grade 11					
per day	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
None assigned	31.9	26.5	28.6	29.0	29.6	24.8	23.9	17.9	22.0	20.5	23.7	22.8	22.0	20.1	19.9	20.3	21.3	23.2
Didn't do it	4.0	3.9	4.4	4.1	4.7	3.8	4.0	5.4	6.2	5.3	6.7	6.5	11.8	12.8	11.3	12.0	11.1	13.6
Less than 1 hour	42.7	48.6	48.7	47.8	48.1	51.8	36.4	34.5	36.6	34.5	33.0	36.4	26.6	28.7	29.9	27.9	28.0	25.8
1–2 hours	14.9	14.1	12.9	13.4	12.9	15.0	27.4	31.1	27.1	30.0	27.2	25.0	27.0	26.4	26.5	27.1	27.0	25.3
More than 2 hours	6.4	7.0	5.5	5.7	4.6	4.6	8.3	11.1	8.0	9.8	9.4	9.3	12.7	12.1	12.4	12.7	12.6	12.2

Percentage distribution of students who reported watching television, by grade and hours per day: 1984–96

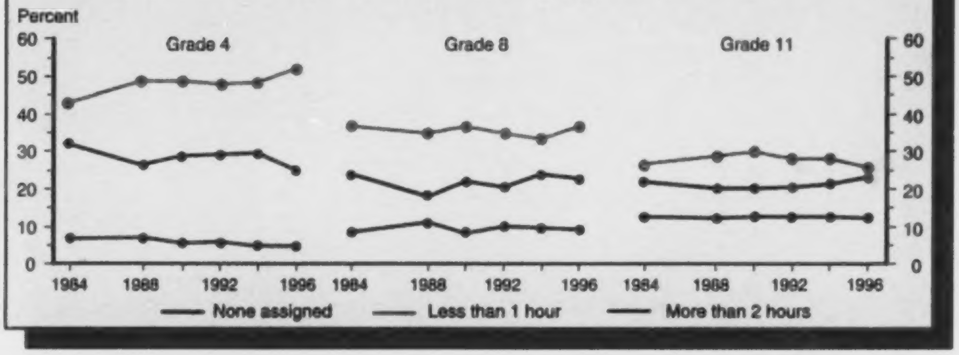
Hours	Grade 4						Grade 8						Grade 11					
per day	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
None	2.3	3.1	2.7	2.9	2.9	3.8	3.0	2.4	2.9	2.8	3.2	4.2	5.1	4.7	5.0	6.1	6.2	6.5
1 hour or less	14.0	14.1	17.7	19.8	21.9	24.8	14.1	14.7	15.4	19.6	20.4	20.5	25.4	27.3	29.8	31.7	31.7	30.0
2–3 hours	32.0	31.1	34.1	36.3	37.8	37.2	43.4	47.0	46.6	48.4	47.1	46.8	44.0	46.9	46.0	43.6	44.2	45.8
4 hours or more	51.6	51.7	45.6	40.9	37.2	34.2	39.4	35.9	35.1	29.3	29.3	28.4	25.5	21.2	19.2	18.6	18.0	17.7

NOTE: The data reported in the tables on this page come from the NAEP long-term trend assessment, while data reported in supplemental tables 37-2 and 37-3 come from the short-term assessment. Therefore, data in these respective tables should not be directly compared. See the supplemental note to *Indicator 16* for an explanation of the difference between these two surveys. Details may not add to 100.0 due to rounding.

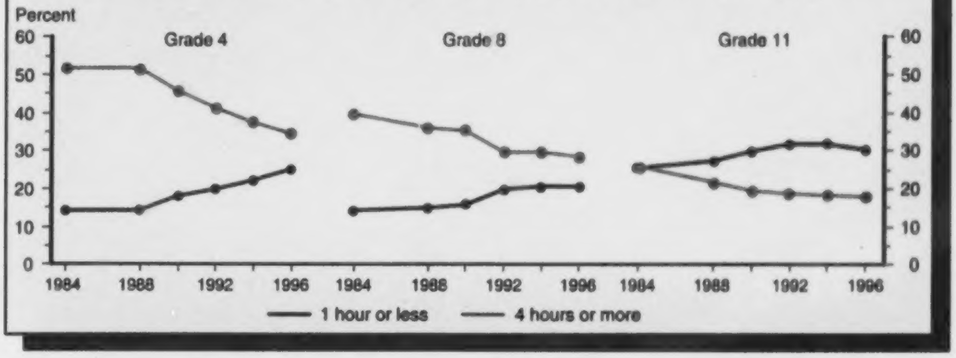
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends Almanac: Writing, 1984 to 1996*, 1998.

Percentage of students who reported spending time on homework and watching television

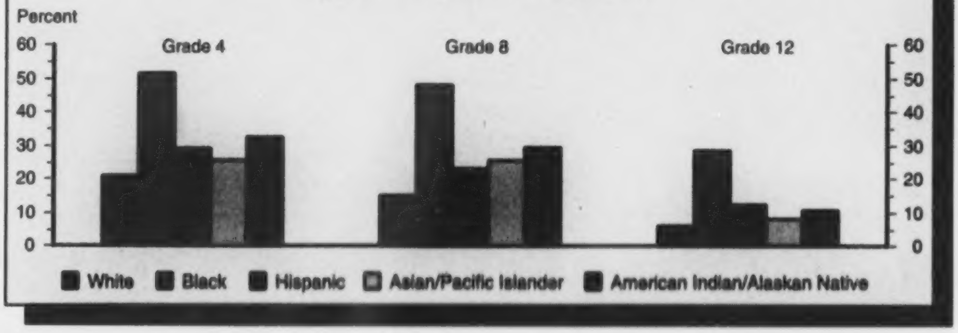
Percentage of students who spent time on homework, by grade and hours per day: 1984–96



Percentage of students who watched television, by grade and hours per day: 1984–96



Percentage of students who watched five hours or more of television per day, by grade and race/ethnicity: 1996



SOURCE: . U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends Almanac: Writing, 1984 to 1996*, 1998; *Summary Data Tables: Math*, 1996.

Instructional time in the classroom

The amount of instructional time students receive in the classroom is one indicator of students' access to various learning opportunities. Instructional time for students can vary both between and within countries. Time is a limited resource, and the amount of time teachers and students spend together is an important part of a student's educational experience.

- In 1994, the United States reported the largest number of teaching hours per year across all school levels, compared to seven other OECD countries. While U.S. teachers spent about the same number of hours teaching across all levels of education, teachers in most other OECD countries spent more hours teaching at the primary level than at the upper secondary level.

- In the United States, France, and Spain, nearly 70 percent or more of eighth-grade students spent 3.5 hours or more per week in mathematics class in 1995. In Germany, Ireland, and Sweden, no more than 15 percent of eighth-grade students spent more than 3.5 hours per week learning mathematics. The United States had one of the larger percentages of eighth-grade students (11 percent) spending 5 or more hours per week in mathematics classes.

- In 1995, fourth-graders in the United States were more likely to spend 3 or more hours per week in science class (42 percent) than their counterparts in most other countries, with the exception of Thailand and Portugal, where at least 70 percent of the students spent 3 or more hours per week in science class (see supplemental table 38-1).

Number of teaching hours[1] per year in public institutions, by school level and country: 1994

	School level[2]			
Country	Primary	Lower secondary	Upper secondary (general)	Upper secondary (vocational)
Denmark	750	750	480	750
France	923	660	660	660
Germany	760	712	650	665
Ireland	915	735	735	735
Italy	748	612	612	612
Spain	900	900	630	630
Sweden	624	576	528	612
United States	958	964	943	—

— Not available.

[1] "Number of teaching hours per year" refers to the total number of hours per year during which a full-time classroom teacher is responsible for teaching a group or class of students, according to the formal policy of the country in question. See the supplemental note to this indicator for further discussion.

[2] Education at the primary, lower secondary, and upper secondary levels corresponds to the International Standard Classification of Education (ISCED) levels one, two, and three, respectively. See the glossary for details on the ISCED levels.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance: OECD Indicators*, 1996.

Percentage of eighth-grade students whose teachers reported time spent teaching mathematics, by number of hours per week in class and country: 1995

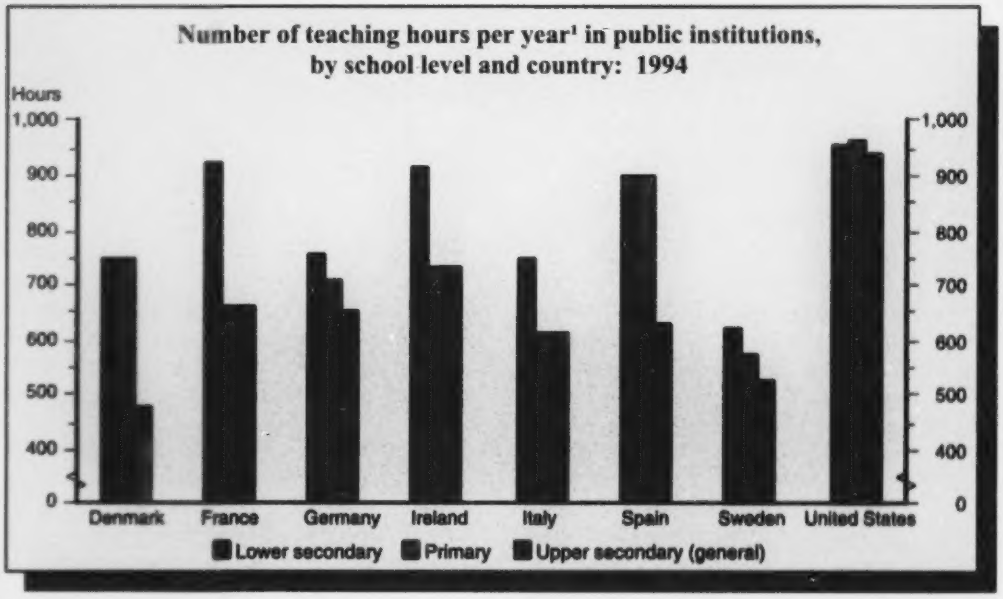
	Number of hours per week in class			
Country	Less than 2 hours	2 hours to less than 3.5 hours	3.5 hours to less than 5 hours	5 hours or more
France	2	10	87	2
Germany*	2	85	12	1
Ireland	1	86	12	1
Spain	2	28	62	8
Sweden	3	97	0	0
United States	8	24	58	11

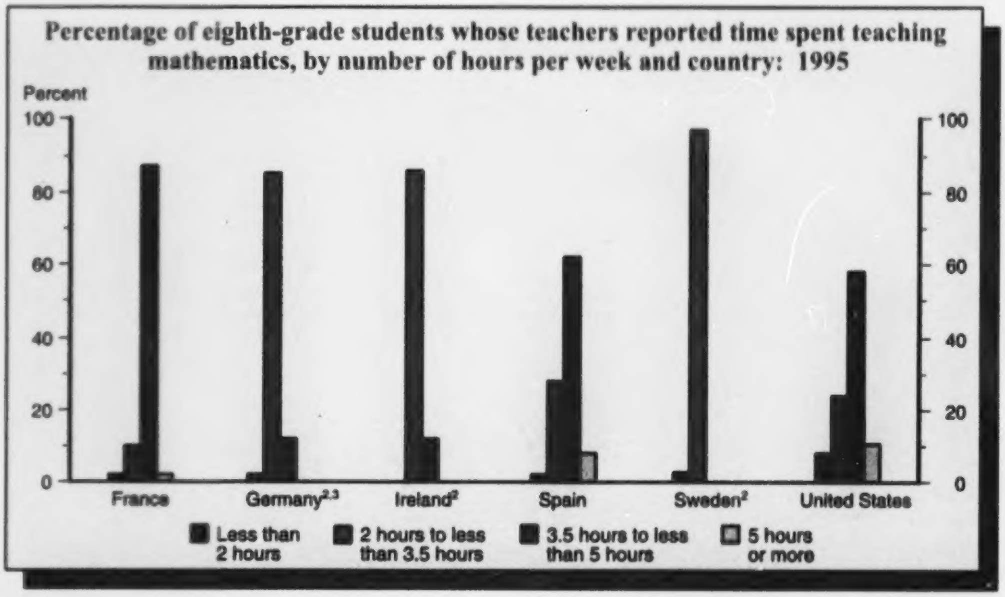
* Did not meet international sampling or other guidelines.

NOTE: In most countries, students classified as eighth-graders are students in the eighth grade; however, for some countries, these students are enrolled in one grade level above the eighth grade. See the supplemental note to *Indicator 20* for further explanation on countries that complied or did not comply with various data collection and sampling guidelines for the Third International Mathematics and Science Study (TIMSS).

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

Instructional time in the classroom


Number of teaching hours per year[1] in public institutions, by school level and country: 1994


Percentage of eighth-grade students whose teachers reported time spent teaching mathematics, by number of hours per week and country: 1995

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[1] "Number of teaching hours per year" refers to the total number of hours per year during which a full-time classroom teacher is responsible for teaching a group or class of students, according to the formal policy of the country in question. See the supplemental note to this indicator for further discussion.

[2] The percentage of teachers who reported that their eighth-grade students spent selected categories of time in school learning mathematics was less than 1.0 percent; therefore, percentages are not presented in the graph.

[3] Did not meet international sampling or other guidelines.

NOTE: In most countries, students classified as eighth-graders are students in the eighth grade; however, for some countries, these students are enrolled in one grade level above the eighth grade.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance: OECD Indicators*, 1996. International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

Teachers' participation in school decision making

The environment in schools and classrooms may be affected by the extent to which teachers participate in decisions about important school policies and issues and the autonomy teachers have in the classroom. Data on teachers' opinions about their influence over school policies and the control that they have over their classrooms can contribute to current debates on teacher professionalism.

- More teachers perceive that they have control over classroom policies than over school policies. For example, in the 1993–94 school year, a higher percentage of teachers perceived having a good deal* of control over classroom decisions than perceived having a good deal of influence over their school's policies (ranging from 57 to 87 percent and 31 to 38 percent, respectively).
- Private school teachers were more likely than public school teachers to perceive having influence over their school's policies and control over most of their classroom decisions in the 1993–94 school year.
- Public and private secondary teachers were more likely than elementary teachers to perceive having a good deal of control over some classroom decisions, such as selecting textbooks, determining the content, topics, and skills to be taught, and selecting teaching techniques. Elementary school teachers perceived having more control over decisions concerning disciplining students and determining the content of in-service programs.
- Private school principals were more likely than public school principals to perceive that teachers had a good deal of influence over establishing curriculum, while public school principals were more likely to perceive that teachers had a good deal of influence over determining the content of in-service programs.

Teachers' and principals' perceptions of the amount of influence or control teachers had over selected school and classroom decisions in their schools, by control and level of school: School year 1993–94

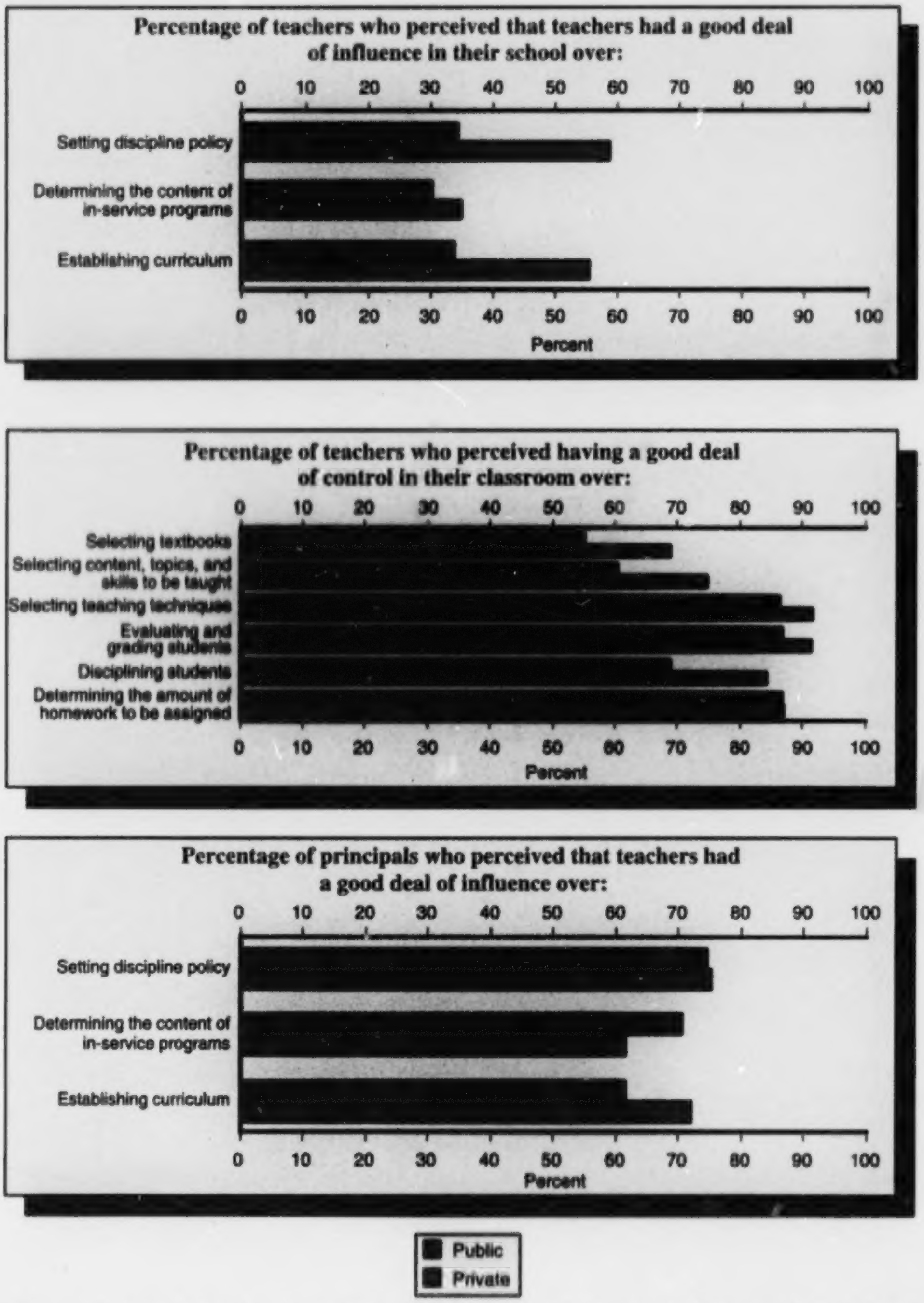
School and classroom decisions	All schools	Public			Private		
		Total	Elementary	Secondary	Total	Elementary	Secondary
Percentage of teachers who perceived that teachers had a good deal of influence in their school over:							
Setting discipline policy	38.0	34.9	41.9	27.3	59.2	64.6	51.7
Determining the content of in-service programs	31.2	30.6	32.6	28.5	35.3	36.4	33.7
Establishing curriculum	37.1	34.3	31.8	37.0	55.7	55.0	56.8
Percentage of teachers who perceived having a good deal of control in their classroom over:							
Selecting textbooks and other instructional materials	57.0	55.2	48.9	62.1	68.8	63.4	76.6
Selecting content, topics, and skills to be taught	62.4	60.5	54.3	67.3	74.9	69.7	82.2
Selecting teaching techniques	87.1	86.5	83.9	89.2	91.7	89.9	94.3
Evaluating and grading students	87.4	86.8	83.8	90.1	91.5	90.1	93.4
Disciplining students	70.9	68.9	73.4	64.0	84.3	86.2	81.8
Determining the amount of homework to be assigned	86.8	86.7	83.7	90.0	86.9	85.5	89.0
Percentage of principals who perceived that teachers had a good deal of influence over:							
Setting discipline policy	74.8	74.6	75.5	72.5	75.3	82.2	68.9
Determining the content of in-service programs	68.4	70.6	70.3	71.6	61.6	66.6	70.1
Establishing curriculum	64.1	61.5	59.7	66.2	72.1	74.0	76.9

* Respondents were asked about influence and control on a scale of 0–5, with 0 meaning "no influence" or "no control," and 5 meaning a "great deal of influence" or "complete control." Responses 4 and 5 were combined in this analysis.

NOTE: Data are revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher, Private School Teacher, Public School Principal, and Private School Principal questionnaires).

Teachers' and principals' perceptions of the amount of influence or control teachers had over school and classroom decisions, by control of school: School year 1993–94



NOTE: Respondents were asked about influence and control on a scale of 0–5, with 0 meaning "no influence" or "no control," and 5 meaning "a great deal of influence" or "complete control." Responses 4 and 5 were combined in this analysis.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher, Private School Teacher, Public School Principal, and Private School Principal questionnaires).

Teaching workload of full-time teachers

Ongoing debates about teachers' salaries, professional status, and instructional time spark interest in the amount of time teachers spend working, the number of classes they teach per day, and the number of students they have in each class. A teacher's work day does not end once classes are dismissed. Teachers are likely to spend additional time outside of school hours working on school-related activities.

- While full-time public school teachers were required to be at school 33 hours per week, on average in the 1993–94 school year, they reported working 45 hours per week. Private school teachers were required to be at school an average of 34 hours per week, but reported working 47 hours per week.
- Full-time public and private school teachers reported spending extra hours (12 and 13 hours, respectively) before and after school and on weekends; of these extra hours, about one-fourth were spent in activities involving students.
- In the 1993–94 school year, full-time public school teachers' classes were larger than those of private school teachers (24 versus 21 students per class).
- In the 1993–94 school year, less experienced teachers (those with 3 years or less of teaching experience) worked more total hours per week than did more experienced teachers (those with 4 or more years of teaching experience).

Average hours full-time teachers spent per week at school and in school-related activities, class size, and classes taught per day, by control of school and selected teacher characteristics: School year 1993–94

			Average hours spent before and after school and on weekends				
Control of school and selected teacher characteristics	Average hours worked per week	Average hours required at school	Total	Activities involving students[1]	Other related activities[1]	Average class size[2]	Average number of classes taught per day[3]
Public	**45.2**	**33.2**	**12.0**	**3.3**	**8.7**	**23.5**	**5.5**
Teacher level							
Elementary	44.0	33.0	11.0	1.7	9.2	23.2	6.4
Secondary	46.5	33.3	13.2	4.9	8.2	23.8	5.5
Years of teaching experience							
3 years or less	48.2	34.3	13.9	4.2	9.8	23.5	5.5
4 years or more	44.8	33.0	11.8	3.2	8.6	23.5	5.5
Private	**47.3**	**34.3**	**13.0**	**3.7**	**9.3**	**20.8**	**5.7**
Teacher level							
Elementary	45.8	34.4	11.4	2.3	9.1	21.3	7.5
Secondary	49.4	34.1	15.3	5.7	9.6	20.1	5.7
Years of teaching experience							
3 years or less	48.8	35.2	13.7	4.0	9.7	19.5	5.6
4 years or more	46.9	34.0	12.9	3.6	9.2	21.1	5.7

[1] "Activities involving students" include coaching, tutoring, going on field trips, and transporting students. "Other related activities" include preparing for class, grading papers, holding parent/teacher conferences, and attending meetings.

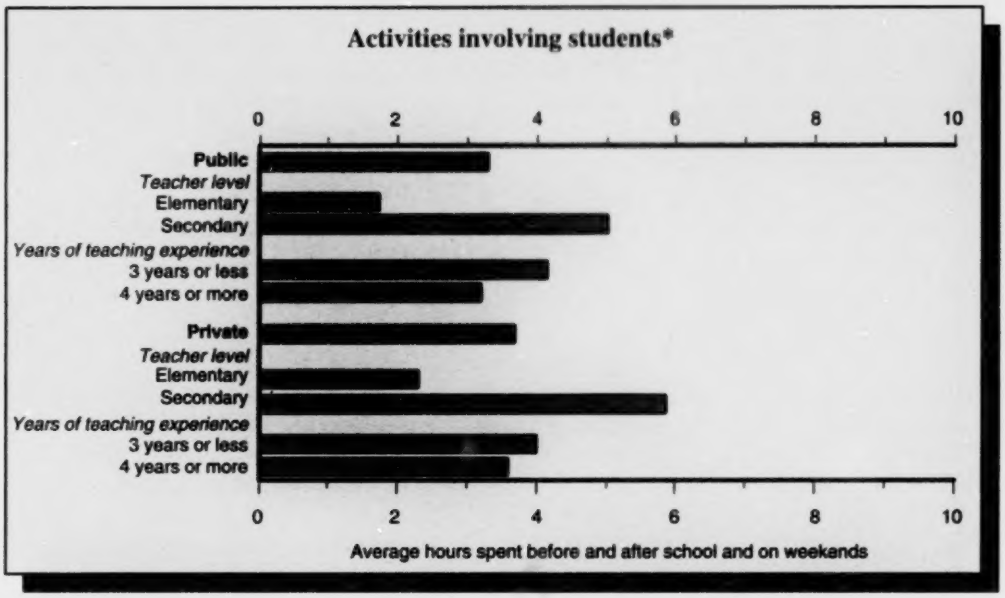
[2] Includes self-contained and departmentalized teachers only.

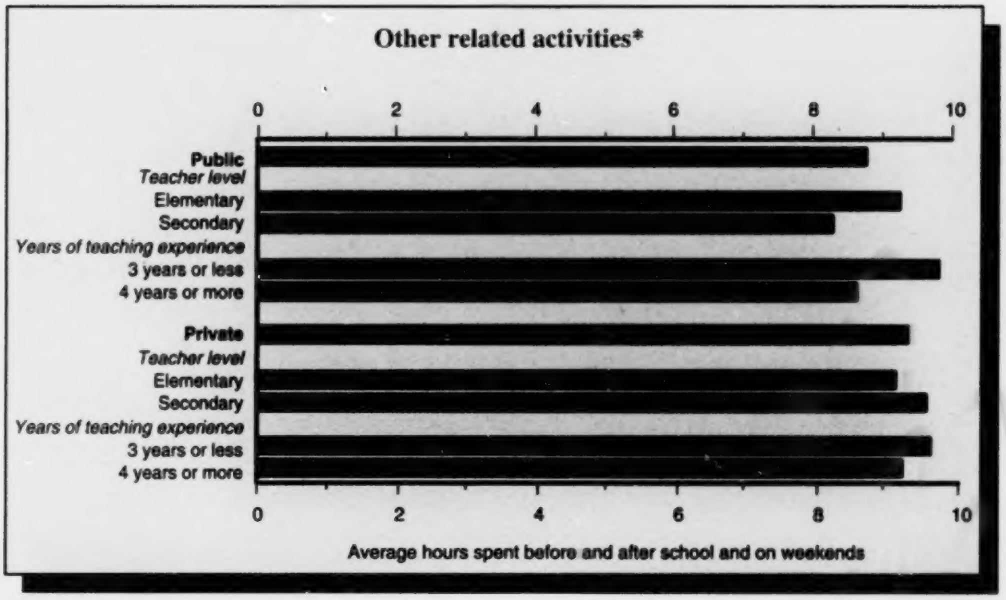
[3] Includes only departmentalized teachers. Since elementary teachers tend not to teach separate classes, only 8 percent of the public school teachers and 18 percent of the private school teachers who responded to this question were elementary teachers, while 92 percent of the public school and 82 percent of the private school teachers were secondary teachers.

NOTE: Excludes a small number of teachers whose schools did not respond to the questionnaire. Details may not add to totals due to rounding. Data are revised from previously published figures. See the supplemental note to this indicator for the definition of teacher level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher and Private School Teacher questionnaires).

Average hours full-time teachers spent per week before and after school and on weekends, by control of school and selected teacher characteristics: School year 1993–94





* "Activities involving students" include coaching, tutoring, going on field trips, and transporting students. "Other related activities" include preparing for class, grading papers, holding parent/teacher conferences, and attending meetings.

NOTE: See the supplemental note to this indicator for the definition of teacher level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher and Private School Teacher questionnaires).

Postsecondary faculty instructional methods

Postsecondary instructional faculty and staff use a variety of methods to instruct students, make classroom assignments, grade students' work, and test students' competency. There has been much debate about which instructional methods are most effective in educating students. One factor in determining the type of instructional methods postsecondary faculty use may be the academic discipline of the particular class.

- In fall 1992, more than one-third of all instructional faculty and staff used teaching tools such as computational tools/software and computer aided instruction. Engineering faculty were more likely to use computational tools/software than faculty from other academic disciplines.
- Sixty-three percent of postsecondary instructional faculty and staff assigned student presentations, and 53 percent assigned term or research papers in fall 1992. Compared to faculty in other academic disciplines, natural sciences and engineering faculty were less likely to use student presentations as an instructional method.
- In fall 1992, postsecondary instructional faculty and staff generally were more likely to use competency-based grading than to grade on a curve consistently across most academic disciplines. However, engineering and natural sciences faculty were more likely to grade on a curve than education and humanities faculty.
- Fifty-seven percent of postsecondary instructional faculty and staff used essay midterms/finals in fall 1992. Humanities and social sciences faculty were more likely to use essay midterms/finals than engineering and natural sciences faculty.

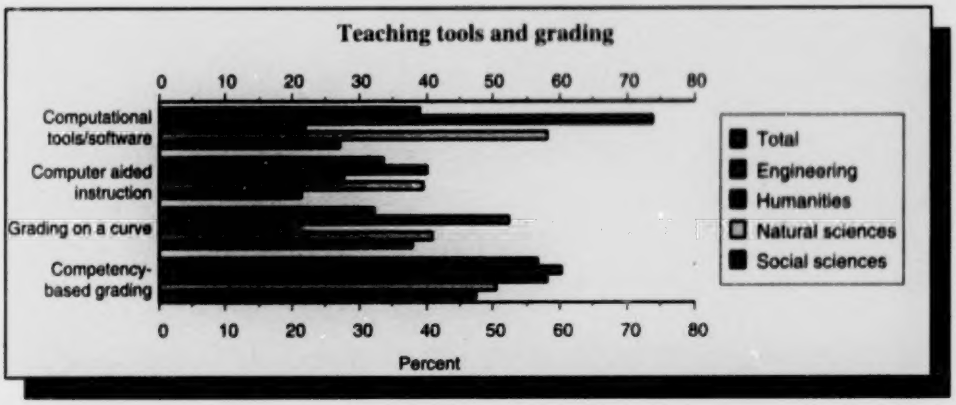
Percentage of postsecondary instructional faculty and staff who used selected instructional methods* for undergraduate classes during the semester, by academic discipline: Fall 1992

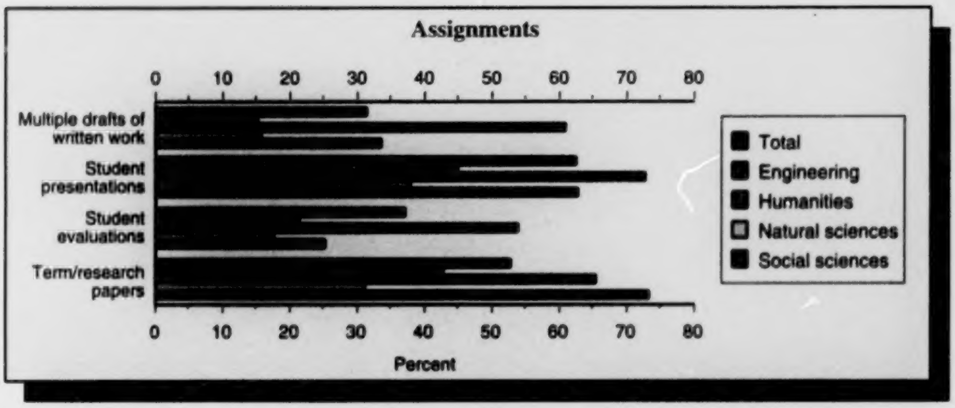
		Academic discipline									
Instructional method	Total	Agriculture/ home economics	Business	Education	Engineering	Fine arts	Health sciences	Humanities	Natural sciences	Social sciences	Other
Teaching tools											
Computational tools/software	39.0	38.1	54.6	35.5	74.0	21.3	40.4	21.9	58.2	27.2	34.0
Computer aided instruction	33.7	31.7	36.8	37.4	40.0	32.0	41.5	27.6	39.6	21.3	34.7
Grading											
Grading on a curve	32.3	47.8	38.8	18.7	52.5	26.7	23.4	21.3	41.0	38.0	33.5
Competency-based grading	56.6	45.2	49.9	62.9	60.3	69.1	64.7	58.2	50.6	47.6	60.2
Assignments											
Multiple drafts of written work	31.5	27.7	22.1	39.0	15.2	23.7	25.2	60.9	15.9	33.6	28.3
Student presentations	62.7	69.5	61.0	79.7	45.0	78.4	67.8	72.9	38.0	62.8	70.4
Student evaluations	37.1	32.2	29.4	55.9	21.5	62.4	34.1	53.9	17.7	25.3	41.0
Term/research papers	52.9	59.0	55.6	61.0	42.8	45.1	50.6	65.5	31.1	73.4	53.0
Midterms/finals											
Multiple choice	55.4	65.9	74.6	57.5	33.9	38.1	80.6	34.4	53.3	65.9	64.9
Short answer	54.6	74.2	58.7	53.2	54.7	48.3	43.3	50.2	63.3	49.7	59.5
Essay	56.8	69.2	54.8	64.3	34.9	49.1	34.2	79.3	41.8	72.2	57.4

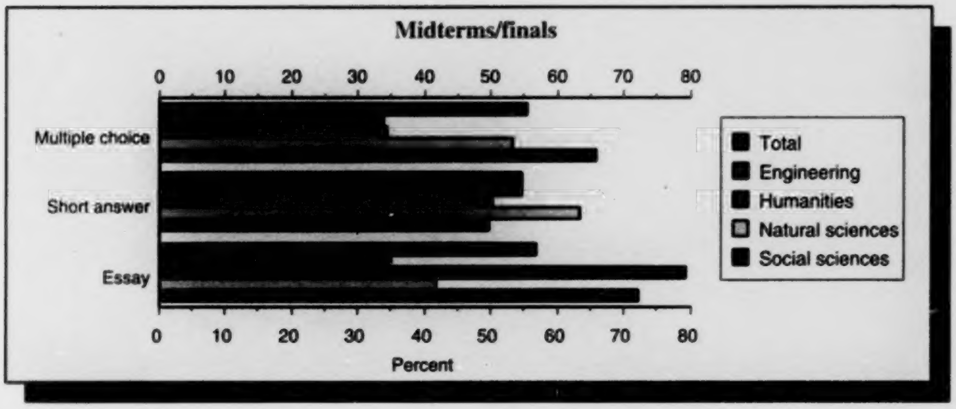
* Includes those faculty who responded "some" or "all" of the time.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Percentage of postsecondary instructional faculty and staff who used selected instructional methods* for undergraduate classes during the semester, by selected academic disciplines: Fall 1992


Teaching tools and grading


Assignments


Midterms/finals

* Includes those faculty who responded "some" or "all" of the time.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Climate and Diversity of Educational Institutions

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Climate and Diversity of Educational Institutions

The quality of education is reflected not only in the subjects taught and achievement levels reached but also in the learning environment of schools. A school's learning environment is enhanced by the safety of school classrooms and facilities, the support parents give to their children's education, and the diversity in the backgrounds of the student body.

Climate

A school's learning environment can both reflect and influence the behavior of students. The learning environment is affected by events both within and outside of school. For example, violence in schools, along with student exposure to drugs and alcohol, can negatively influence student learning and the overall school environment. Parents' involvement in their children's education can have the opposite effect: it can act as a catalyst to student learning and positively affect student success in school.

Student drug and alcohol use

Alcohol and drug use can interfere with a student's thinking, reduce a student's academic performance, and is associated with violent crime. Drug use by high school seniors has begun to rise again, after falling during the 1980s and early 1990s (*Indicator 46*). For example, the percentage of high school seniors who reported using marijuana within the past year rose from 22 to 39 percent between 1992 and 1997 (table 46-1). In addition, many students reported that it is easy for them to obtain drugs. In 1997, more than half of all 8th-graders, 81 percent of 10th-graders, and 90 percent of 12th-graders reported that it would be "fairly easy" or "very easy" for them to obtain marijuana (table 46-3). Cigarette use also increased between 1991 and 1997. In 1997, 19 percent of 8th-graders, 30 percent of 10th-graders, and 37 percent of 12th-graders reported smoking cigarettes within the past 30 days (table 46-2).

Student victimization at school

Violence in schools reduces the effectiveness of the learning environment and exposes students to physical and emotional harm. Between 1976 and 1996, there was little change in the percentage of high school seniors who reported being victimized at school. During this period, theft was the most frequently reported type of victimization. The percentage of high school seniors who reported that they had something stolen at school during the previous 12 months ranged from 34 to 42 percent between 1976 and 1996 (*Indicator 47*). In terms of racial/ethnic groups, black high school seniors were about equally as likely as their white peers to report being victimized at school, except for injuries involving weapons. In 1996, 10 percent of black high school seniors reported being injured to a weapon in the past 12 months at school compared to 4 percent of white high school seniors (table 47-1). Additionally, the problem of crime in schools is not limited to urban areas. In 1996, seniors from metropolitan and nonmetropolitan areas were about equally likely to report being victimized at school during the previous 12 months (table 47-2).

Parents' involvement in education

Parents' involvement in their children's education can affect the quality of the school learning environment. To encourage a better learning environment, some schools have adopted practices or policies that encourage parents to become more involved in their children's school activities and events. In 1996, 84 percent of students had parents who reported that they had attended a scheduled meeting with their child's teacher, while 66 percent had parents who reported they had attended a school event (*Indicator 49*).

In addition to attending school activities, parents can become involved with their child's education by helping them with homework. In 1996, 73 percent of students had parents who reported helping their child with homework at least once a week (*Indicator 49*).

Working while in college

Working while in college may affect the quality of a student's learning experience in both positive and negative ways. For example, working may provide students with valuable knowledge or skills that cannot be gained in the classroom. However, students who work while enrolled in college may have less time for studying and participating in other school-related activities. In 1995–96, four out of five undergraduates reported working while they were enrolled in postsecondary education. Thirty-seven percent of the undergraduates who worked reported that working had a negative impact on their grades (*Indicator 52*).

Diversity of students

The family characteristics, racial/ethnic backgrounds, and disabilities of children at school can influence the environment in which learning occurs.

Family characteristics

The various environments that students are exposed to at home contribute to the diversity of school classrooms. Information on family characteristics, such as parents' level of educational attainment and employment status, can increase educators' awareness of the factors contributing to student performance.

The educational attainment of parents of 15- to 18-year-olds has increased during the past 25 years. The percentage of 15- to 18-year-olds whose mothers had at least a high school diploma or GED increased from 62 to 83 percent between 1972 and 1997, while the percentage of fathers with at least a high school diploma or GED rose from 59 to 84 percent during this same time period (table 44-1, *Indicator 44*). Even though the educational attainment of parents increased overall between 1972 and 1997, the educational attainment of mothers of white 15- to 18-year-olds exceeded that of mothers of black and Hispanic 15- to 18-year-olds. Ninety-two percent of mothers of white 15- to 18-year-olds had at least a high school diploma or GED in 1997, compared to 78 percent of mothers of black children and 45 percent of mothers of Hispanic children (tables 44-2, 44-3, and 44-4).

Even though parents' educational attainment has increased over time, parents with problematic behaviors and attitudes can negatively influence students. During the 1993–94 school year, 13 percent of public school teachers reported that parent alcoholism and/or drug abuse were serious problems in their schools, and 28 percent reported that lack of parent involvement was a serious problem (*Indicator 48*).

Race/ethnicity

The racial/ethnic composition of the student population contributes to the linguistic and cultural diversity of the Nation's elementary and secondary schools. Along with this diversity comes new learning opportunities for students and new challenges for schools to accommodate the needs of a diverse student body. The percentage of minority students enrolled in public elementary and secondary schools has increased over the past two decades, reaching 35 percent of total enrollment in grades 1–12 in 1995. This increase was largely due to the growth in the proportion of Hispanic students enrolled in schools (table 43-1).

Students with disabilities

Students with disabilities present unique challenges for educators and policymakers. Programs and services offered to disabled students are influenced not only by demand but also by the human and financial resources available to schools. The number of students who participated in federal programs for students with disabilities increased considerably in the past 20 years, rising 51 percent between 1977 and 1996 (table 45-1). In 1996, students who received services in federally funded programs made up 12 percent of all students enrolled in public schools (*Indicator 45*). Of all public school students with disabilities, approximately three out of four were served in regular classrooms or resource rooms in 1995, while almost one out of four were served in separate classes in regular school buildings (table 45-2).

Higher education

Most colleges and universities actively seek diversity in their student bodies in order to enhance the learning environment. In 1995, minority students made up 25 percent of all students enrolled in the Nation's colleges and universities, up from 15 percent in 1976. This increase in minority enrollment was due mostly to the growth in the enrollment of Hispanic and Asian/Pacific Islander students. However, black students account for the largest percentage of minorities enrolled in colleges and universities. In 1995, black students made up 10 percent of total enrollment, while Hispanics and Asian/Pacific Islanders accounted for 8 and 6 percent of total enrollment, respectively (*Indicator 51*).

Elementary and secondary school enrollment

School enrollment is one measure of the size of the educational system and of the demand for teachers, buildings, and educational resources. Past trends and projected future changes in the composition of enrollment across levels of education and regions of the country, as well as between public and private schools, indicate the amount of resources the Nation requires.

- Between 1988 and 1998, total public school enrollment is projected to increase 16 percent, after falling 12 percent between 1970 and 1988. From 1970 through 1997, approximately 9 out of 10 children in prekindergarten (preK) through grade 12 were enrolled in public schools (see supplemental tables 42-1 and 42-2).

- Total private school enrollment is projected to increase 11 percent between 1970 and 1998, after falling 2 percent between 1970 and 1988, and then rise 13 percent between 1988 and 1998.

- Total public school enrollment is projected to rise from 46.8 million in 1998 to 48.2 million in 2008, an increase of 3 percent. During this same period, total private school enrollment is expected to increase by 2 percent, rising from 5.9 to 6.1 million.

- Between 1988 and 1998, public school enrollment is projected to increase within each of the four regions, ranging from 9 percent in the Midwest to 28 percent in the West. Total public school enrollment is projected to increase in the South and West, but decrease in the Northeast and Midwest between 1998 and 2008.

Elementary and secondary school enrollment (in thousands), by control and level of school, with projections: Fall 1970–2008

	Public schools			Private schools		
Year/period	Grades PreK–12	Grades PreK–8	Grades 9–12	Grades PreK–12	Grades PreK–8	Grades 9–12
1970	45,894	32,558	13,336	5,363	4,052	1,311
1988	40,189	28,501	11,687	5,241	4,036	1,206
		Projected*			**Projected***	
1998	46,792	33,522	13,270	5,927	4,588	1,339
2008	48,201	33,455	14,746	6,067	4,579	1,488
		Percentage change			**Percentage change**	
1970–88	-12.4	-12.5	-12.4	-2.3	-0.4	-8.0
		Projected percentage change			**Projected percentage change**	
1988–98	16.4	17.6	13.5	13.1	13.7	11.0
1998–2008	3.0	-0.2	11.1	2.4	-0.2	11.1

* Enrollment includes students in kindergarten through grade 12, and some nursery school students.

NOTE: Details may not add to totals due to rounding.

Public elementary and secondary school enrollment (in thousands) by region, with projections: Fall 1980–2008

Fall of year	Northeast	Midwest	South	West
1980	8,215	10,698	14,134	7,831
1985	7,318	9,862	14,117	8,124
1988	7,208	9,846	14,491	8,644
1990	7,282	9,944	14,807	9,184
1995[1]	7,894	10,512	16,118	10,316
1997[2]	8,151	10,665	16,657	10,838
1998[2]	8,214	10,679	16,864	11,033
2008[2]	8,100	10,344	17,501	12,257
		Projected percentage change		
1988–98	14.0	8.5	16.4	27.6
1998–2008	-1.4	-3.1	3.8	11.1

[1] Revised from previously published figures.

[2] Projected.

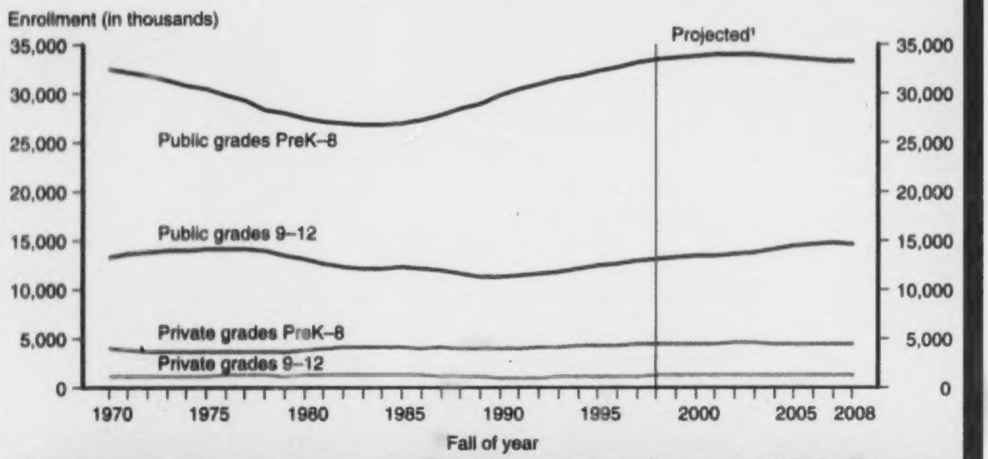
NOTE: See the note in supplemental table 42-3 for a definition of regions.

Details may not add to totals due to rounding.

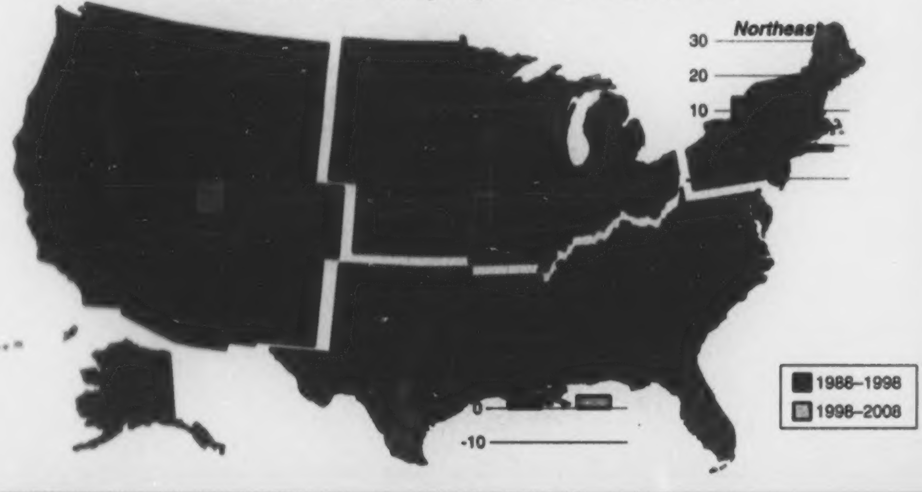
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998.

Elementary and secondary school enrollment

Elementary and secondary school enrollment, by control and level of school: Fall 1970–2008



Projected percentage change in public elementary and secondary school enrollment, by region:[2] Fall 1988 to 2008



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[1] Enrollment includes students in kindergarten through grade 12, and some nursery school students.

[2] See the note in supplemental table 42-3 for a definition of regions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998.

Racial and ethnic distribution of elementary and secondary students

Changes in the racial/ethnic composition of students may change the degree of heterogeneity of language and culture in the Nation's schools. While variety in student backgrounds and interests can enhance the learning environment, it can also create new or increased challenges for the schools. Knowledge of the shifting racial/ethnic distribution of public elementary and secondary students can give schools the foresight to plan for these challenges.

- Thirty-five percent of students enrolled in grades 1–12 in public schools were considered to be part of a minority group in 1995, an increase of 11 percentage points from 1976. This increase was largely due to the growth in the percentage of Hispanic students (see supplemental table 43-1).

- Since 1970, approximately one out of every three students in central city public schools has been black. In 1995, 11 percent of the students in metropolitan area public schools outside of central cities were black, up from 6 percent in 1970.

- In 1995, approximately one out of every four students in central city public schools was Hispanic, up from approximately one out of every ten students in 1972.

- The percentage of black and Hispanic students enrolled in private schools increased between 1972 and 1995, rising from 5 percent each for both black and Hispanic students in 1972 to 10 percent for black students and 7 percent for Hispanic students in 1995.

Percentage of students in grades 1–12 who are black or Hispanic, by control of school and metropolitan status: 1970–95

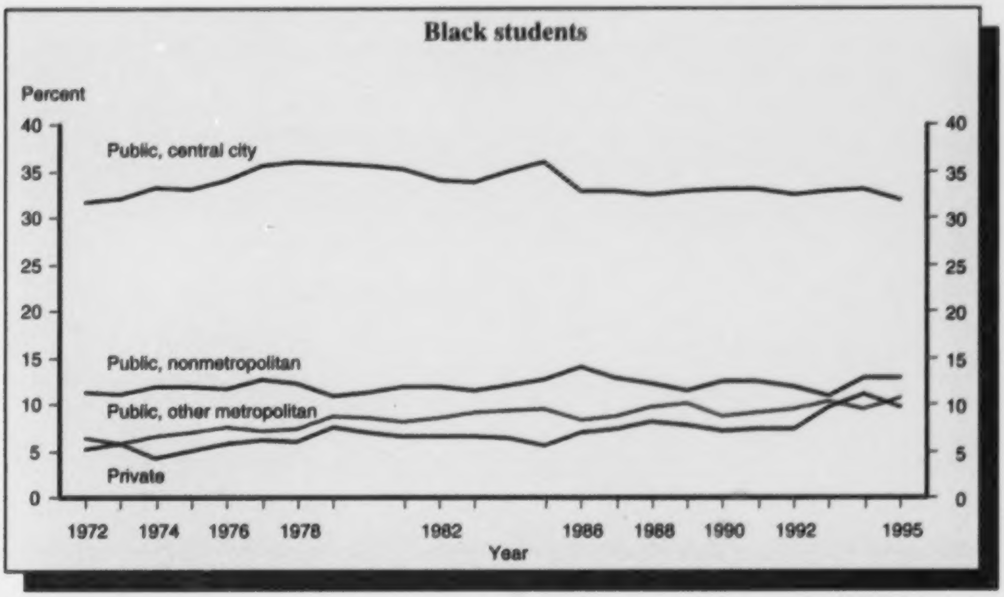
	Black					Hispanic				
	Public schools					Public schools				
Year	Total	Central cities	Other metropolitan	Nonmetropolitan	Private schools	Total	Central cities	Other metropolitan	Nonmetropolitan	Private schools
1970	14.8	32.5	6.2	12.0	4.7	—	—	—	—	—
1972	14.9	31.7	6.3	11.3	5.2	5.8	10.8	4.4	3.6	4.7
1974	15.4	33.2	6.6	11.8	4.3	6.2	11.4	4.4	4.4	7.3
1976	16.0	34.0	7.6	11.7	5.8	6.6	11.4	5.9	3.7	5.4
1978	16.1	35.9	7.4	12.3	6.0	6.4	11.9	6.1	3.0	5.2
1979	16.1	35.8	8.8	10.9	7.5	6.8	14.0	5.3	3.5	5.5
1982	16.2	34.0	8.6	11.9	6.6	8.7	17.7	7.0	4.3	7.3
1985	17.0	36.0	9.5	12.7	5.6	10.1	21.5	8.6	4.2	6.1
1986	16.7	32.9	8.3	14.1	6.9	10.6	20.2	8.3	4.1	7.0
1988	16.8	32.4	9.8	12.2	8.2	10.8	19.2	9.0	4.7	6.7
1990	16.5	33.1	8.8	12.5	7.2	11.6	19.8	10.8	4.0	7.2
1991	16.7	33.0	9.2	12.4	7.3	11.7	20.6	10.5	3.5	7.1
1992	16.7	32.5	9.5	11.9	7.4	11.9	20.8	10.9	3.6	7.7
1993	16.7	32.9	10.4	10.9	9.8	11.9	21.6	9.9	5.1	7.1
1994	16.8	33.0	9.6	12.9	11.1	13.4	24.7	11.1	5.8	9.1
1995	17.1	31.8	10.7	12.8	9.7	14.0	24.3	11.6	6.5	7.4

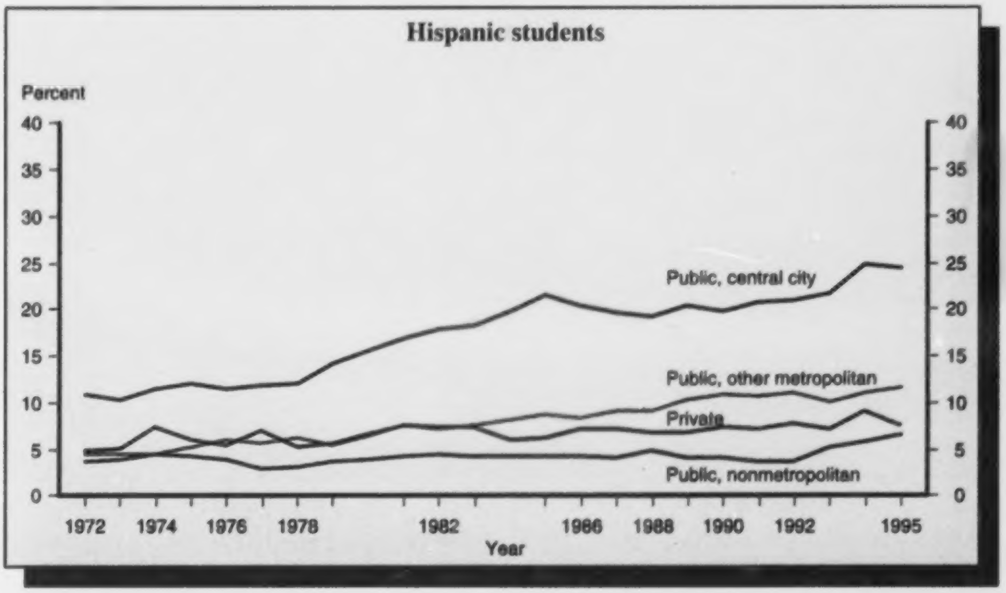
— Not available.

NOTE: The Current Population Survey (CPS) definition of metropolitan areas in the United States was changed in 1985. For data through 1984, metropolitan areas are defined on the basis of the 1970 census. A small number of students are both black and Hispanic (less than 1 percent).

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years, and October Current Population Surveys.

Percentage of students in grades 1–12 who are black or Hispanic, by control of school and metropolitan status: 1972–95





NOTE: Data for control of school were not available in 1980 and data for residence of students were not available in 1984. The Current Population Survey (CPS) definition of metropolitan areas in the United States was changed in 1985. For data through 1984, metropolitan areas are defined on the basis of the 1970 census. A small number of students are both black and Hispanic (less than 1 percent).

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years, and October Current Population Surveys.

Family characteristics of 15- to 18-year-olds

The family environment in which a child lives affects many aspects of that child's life, including school performance. For example, research has shown that family characteristics, such as parents' educational attainment, number of siblings, family income, and mother's employment status, are related to student achievement. Data on family characteristics may help policymakers and educators apply resources more efficiently and develop programs designed to increase learning.

- The educational attainment of parents of 15- to 18-year-olds increased substantially between 1972 and 1997. The percentage whose mothers attained a high school diploma, GED, or higher increased from 62 to 83 percent, while the percentage whose fathers attained a high school diploma, GED, or higher rose from 59 to 84 percent (see supplemental table 44-1).
- The employment rate of mothers of 15- to 18-year-olds increased between 1972 and 1997, rising from 49 percent in 1972 to 73 percent in 1997. The employment rate of fathers remained relatively constant between 1977 and 1997, although it was little higher in 1972 than it was in 1997.
- Despite the increase in mothers' employment rate, median family income (in 1997 constant dollars) remained relatively stable between 1972 and 1997 (see supplemental table 44-1).
- The percentage of 15- to 18-year-olds who lived with only their mother increased from 14 to 24 percent between 1972 and 1997, while the percentage who lived with two parents decreased from 84 to 71 percent.
- In 1997, 15- to 18-year-olds had fewer siblings than their peers in 1972. Sixty percent of 15- to 18-year-olds had two or more siblings in 1972, compared to 37 percent in 1997.

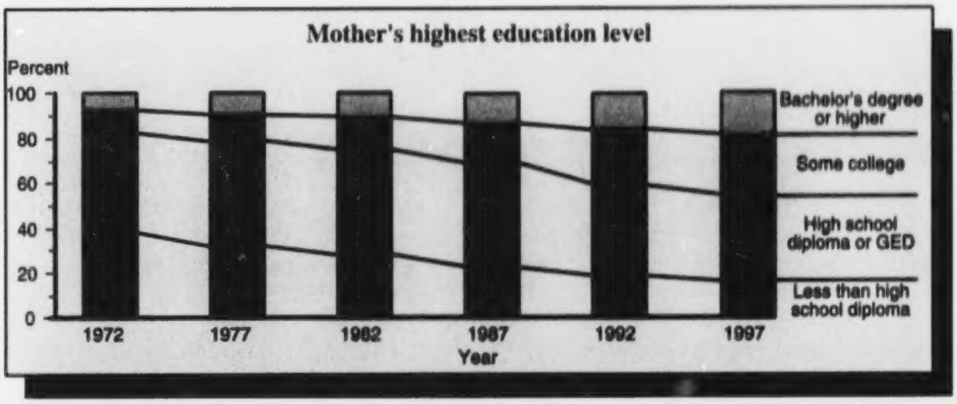
Family characteristics of 15- to 18-year-olds: 1972–97

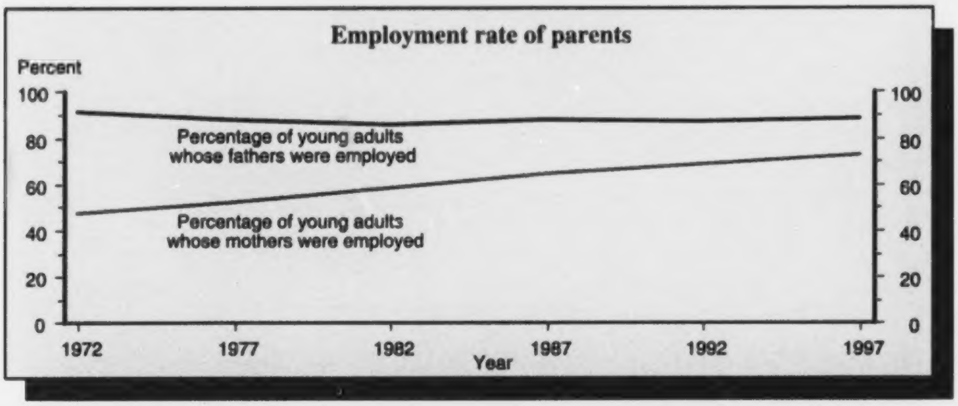
Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	38.4	32.5	28.1	22.6	18.7	17.0
High school diploma or GED	44.5	46.5	47.0	46.6	40.2	37.1
Some college	10.0	11.9	14.4	17.8	25.3	26.9
Bachelor's degree or higher	7.1	9.1	10.6	12.9	15.7	19.1
Percentage of young adults whose mothers were employed	48.6	53.0	59.0	65.3	69.4	73.4
Percentage of young adults whose fathers were employed	91.8	88.6	86.7	88.7	88.2	89.3
Family type						
Two-parent household	84.3	80.1	75.7	73.6	72.5	71.2
Father as head of household	2.0	2.6	2.9	3.6	3.9	5.0
Mother as head of household	13.7	17.3	21.4	22.8	23.6	23.8
Number of other children in household						
0–1	39.8	45.6	50.9	59.8	61.9	62.6
2–3	39.4	38.6	39.1	34.1	32.1	31.9
4 or more	20.8	15.9	10.0	6.1	6.1	5.5

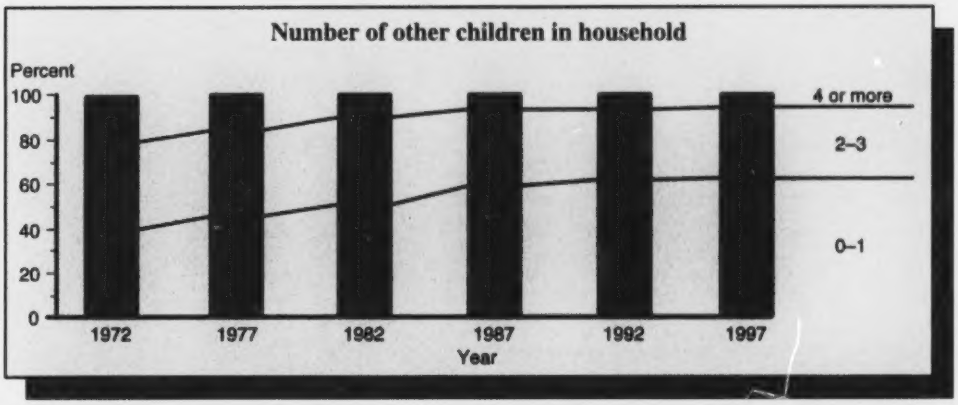
NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. Emancipated minors were not included in this analysis. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Family characteristics of 15- to 18-year-olds: 1972–97


Mother's highest education level


Employment rate of parents


Number of other children in household

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. Emancipated minors were not included in this analysis.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Education of students with disabilities

The Individuals with Disabilities Education Act (IDEA) mandates that all children have available to them a free and appropriate education designed to meet their unique needs. Changes in the percentage of total elementary and secondary enrollment and the distribution of students with disabilities affect the level of effort required of educators and policymakers to comply with the current law and help them forecast the need for future resources.

- In 1996, children with disabilities receiving services in federally supported programs constituted 12 percent of all students enrolled in public schools (grades K–12), up from 8 percent in 1977.
- The number of students who participated in federal programs for children with disabilities increased 51 percent, between 1977 and 1996, rising from 3.7 to 5.6 million students (see supplemental table 45-1).
- Between 1977 and 1996, the percentage of children with specific learning disabilities as a percentage of total public school (grades K–12) enrollment rose from 2 to 6 percent, while those with speech or language impairments or mental retardation decreased by approximately 1 percentage point each.
- In 1995, 73 percent of public school children with disabilities were served in regular classrooms or resource rooms combined in a regular school building, while 23 percent were served in separate classes in regular school buildings (see supplemental table 45-2).

Children from birth to age 21 who were served by federally supported programs for students with disabilities, by type of disability: School years ending 1977–96

Type of disability	1977	1979	1981	1983	1985	1987	1989	1991	1993	1994	1995	1996
	As a percentage of total public K–12 enrollment[1]											
All disabilities[2]	**8.3**	**9.3**	**10.1**	**10.8**	**11.0**	**11.0**	**11.3**	**11.6**	**12.0**	**12.2**	**12.2**	**12.4**
Specific learning disabilities	1.8	2.7	3.6	4.4	4.7	4.8	4.9	5.2	5.5	5.5	5.6	5.8
Speech or language impairments	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.3	2.3	2.3	2.3
Mental retardation	2.2	2.2	2.0	1.9	1.8	1.6	1.4	1.3	1.2	1.2	1.3	1.3
Serious emotional disturbance	0.6	0.7	0.9	0.9	1.0	1.0	0.9	1.0	0.9	1.0	1.0	1.0
Preschool disabled[3]	(4)	(4)	(4)	(4)	(4)	(4)	1.0	1.1	1.2	1.3	1.2	1.2
	Percentage distribution											
All disabilities[2]	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Specific learning disabilities	21.6	29.1	35.3	40.9	42.5	43.8	43.6	44.7	45.9	45.4	46.3	46.3
Speech or language impairments	35.3	31.2	28.2	26.6	26.1	26.0	21.1	20.7	19.4	19.1	18.9	18.3
Mental retardation	26.0	23.2	20.0	17.8	16.1	14.7	12.7	11.2	10.1	10.1	10.3	10.2
Serious emotional disturbance	7.7	7.7	8.4	8.3	8.6	8.8	8.3	8.2	7.8	7.8	7.9	7.9
Preschool disabled[3]	(4)	(4)	(4)	(4)	(4)	(4)	8.7	9.3	10.4	10.9	9.6	9.8

[1] Based on K–12 enrollment in public schools, including a small number of prekindergarten students.

[2] Included in the total but not shown separately are other types of disabilities.

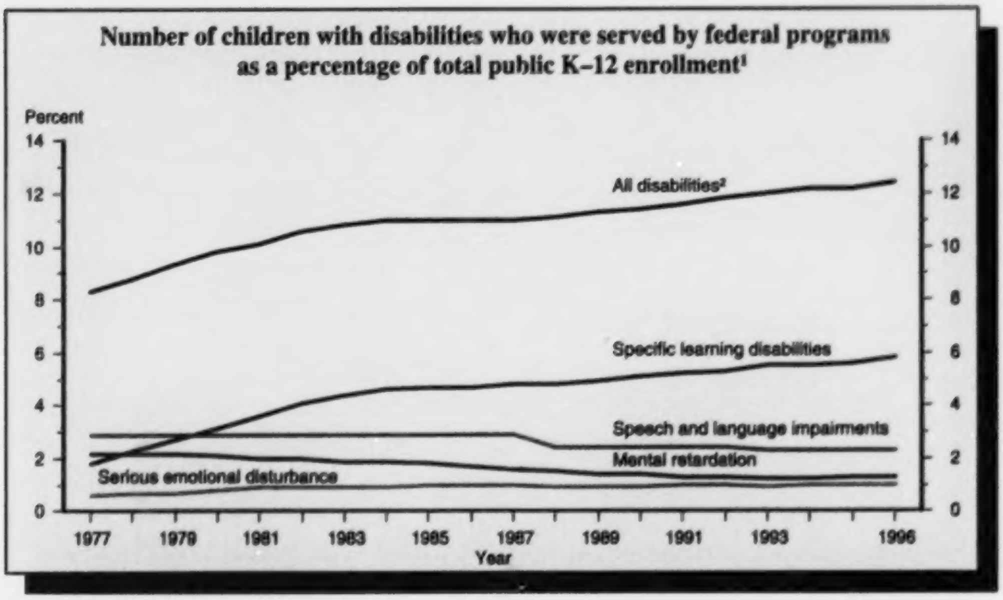
[3] Includes preschool children ages 3–5 who were served under Chapter 1 of the Education Consolidation and Improvement Act (ECIA) and those ages 0–5 served under Part B of the IDEA.

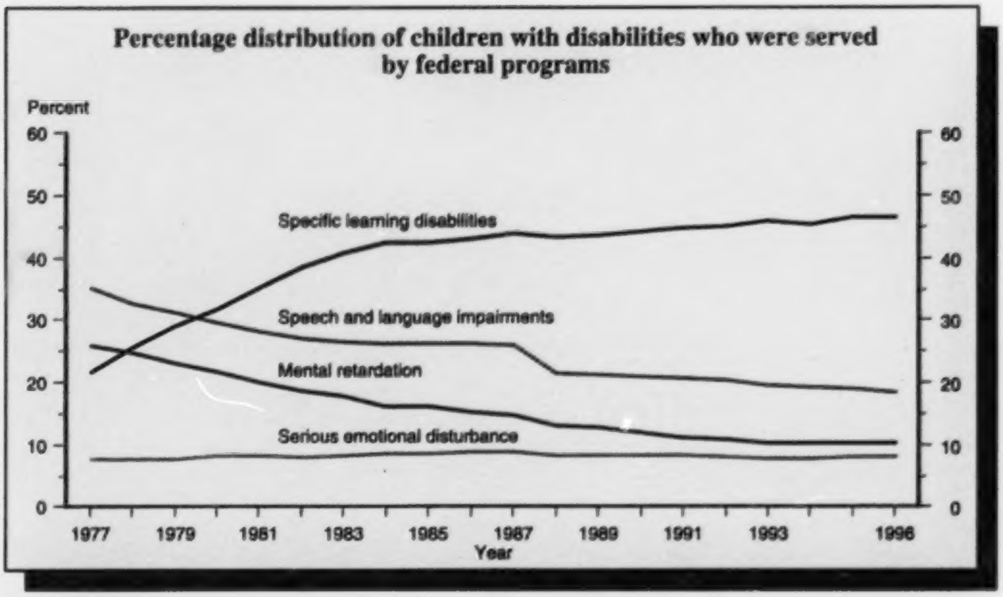
[4] Beginning in the 1987–88 school year, states were no longer required to report preschool students (ages 0–5) with disabilities by disabling conditions.

NOTE: This analysis includes students who were served under Chapter 1 of the ECIA and Part B of the IDEA. Data for 1977 through 1995 are revised from previously published figures.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years, and unpublished tabulations; and National Center for Education Statistics, Common Core of Data Survey.

Children from birth to age 21 who were served by federally supported programs for students with disabilities, by type of disability: School years ending 1977–96


Number of children with disabilities who were served by federal programs as a percentage of total public K–12 enrollment[1]


Percentage distribution of children with disabilities who were served by federal programs

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[1] Based on K–12 enrollment in public schools, including a small number of prekindergarten students.

[2] Included in the total but not shown separately are other types of disabilities.

NOTE: This analysis includes students who were served under Chapter 1 of the Education Consolidation and Improvement Act (ECIA) and Part B of the Individuals with Disabilities Education Act (IDEA).

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years, and unpublished tabulations; and National Center for Education Statistics, Common Core of Data Survey.

Student alcohol and drug use

Alcohol and drug use can interfere with a student's thinking, reduce a student's academic achievement, and is associated with violent crime. Therefore, it is important for educators and administrators to determine the scope of student drug and alcohol problems and how these problems affect the school's goal of providing a safe and effective learning environment. The percentage of students who report alcohol and drug use is an indicator of the prevalence of these problems.

- After decreasing throughout the 1980s and early 1990s, drug use by high school seniors has begun to rise again. For example, the percentage of seniors who reported using cocaine any time in the previous year rose from 3 to 6 percent between 1992 and 1997. The percentage of seniors who reported using marijuana rose from 22 to 39 percent during this time period (see supplemental table 46-1).
- While the percentage of high school seniors who reported consuming alcohol any time during the previous year decreased between 1979 and 1992, it still remains high. In 1997, 75 percent of high school seniors reported consuming alcohol during the previous year, and 53 percent reported consuming alcohol in the previous 30 days (see supplemental tables 46-1 and 46-2).
- In 1997, more 8th-, 10th-, and 12th-graders reported that it would be "fairly easy" or "very easy" to obtain marijuana than their counterparts in 1992 (see supplemental table 46-3).
- Between 1991 and 1997, the percentage of 8th-, 10th-, and 12th-graders who reported smoking cigarettes in the previous 30 days increased, rising 5 percentage points for 8th-graders, 9 percentage points for 10th-graders, and 8 percentage points for 12th-graders (see supplemental table 46-2).

Percentage of high school seniors who reported using alcohol or drugs any time during the previous year, by type of drug: School years 1975–97

Type of drug	1975	1978	1981	1984	1987	1990	1993	1994	1995	1996	1997
Alcohol	84.8	87.7	87.0	86.0	85.7	80.6	*72.7	*73.0	*73.7	*72.5	*74.8
Marijuana	40.0	50.2	46.1	40.0	36.3	27.0	26.0	30.7	34.7	35.8	38.5
Any illicit drug other than marijuana	26.2	27.1	34.0	28.0	24.1	17.9	17.1	18.0	19.4	19.8	20.7
Stimulants	16.2	17.1	26.0	17.7	12.2	9.1	8.4	9.4	9.3	9.5	10.2
LSD	7.2	6.3	6.5	4.7	5.2	5.4	6.8	6.9	8.4	8.8	8.4
Cocaine	5.6	9.0	12.4	11.6	10.3	5.3	3.3	3.6	4.0	4.9	5.5
Sedatives	11.7	9.9	10.5	6.6	4.1	3.6	3.4	4.2	4.9	5.3	5.4
Tranquilizers	10.6	9.9	8.0	6.1	5.5	3.5	3.5	3.7	4.4	4.6	4.7
Inhalants	—	4.1	4.1	5.1	6.9	6.9	7.0	7.7	8.0	7.6	6.7

— Not available.

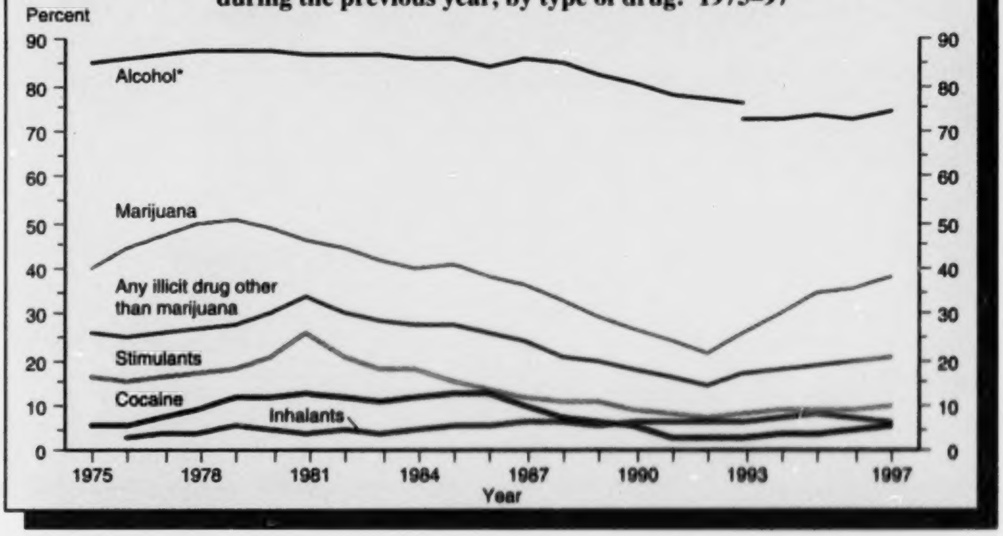
* In 1993, the questions regarding alcohol consumption were changed; therefore, data for alcohol use from 1993 through 1997 may not be comparable to those for earlier years. For example, in 1993, the original wording produced an estimate of 76 percent for alcohol use. The new wording produced an estimate of 73 percent.

NOTE: Only drug use not under a doctor's orders is included.

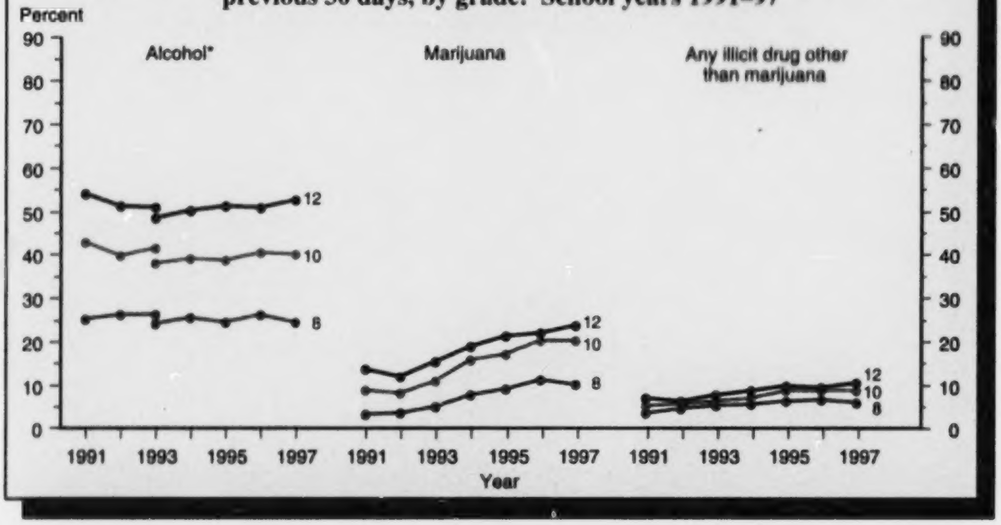
SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Student alcohol and drug use

Percentage of high school seniors who reported using alcohol or drugs at any time during the previous year, by type of drug: 1975–97



Percentage of students who reported using alcohol or drugs any time during the previous 30 days, by grade: School years 1991–97



* In 1993, the questions regarding alcohol consumption were changed; therefore, data for alcohol use from 1993 through 1997 may not be comparable to those for earlier years. For example, in 1993, the original wording produced an estimate of 76 percent for alcohol use. The new wording produced an estimate of 73 percent. Both data points for 1993 are presented on the graphs.

NOTE: In 1975, data for use of inhalants were not available. Only drug use not under a doctor's orders is included.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Student victimization at school

Violence in schools directly affects educators and students by reducing school effectiveness and inhibiting student learning. Additionally, unsafe school environments expose students who may already be at risk for school failure to physical and emotional harm. In recent years, educators and policymakers have voiced growing concern about possible increases in the incidence of school-related criminal behavior. Studying trends in victimization rates provides a picture of the safety of today's schools.

- Victimization rates at school for high school seniors changed little between 1976 and 1996, with the exception of small increases in the percentage of students who reported being threatened both with and without a weapon in the previous 12 months. The most common type of victimization at school reported by high school seniors in 1996 was having something stolen (38 percent).
- In 1996, black and white high school seniors were about equally likely to report being victimized at school in the previous 12 months, except blacks were more likely to have been injured with a weapon than whites. Ten percent of black high school seniors reported being injured with a weapon in the previous 12 months in 1996, compared to 4 percent of white seniors (see supplemental table 47-1).
- In 1996, high school seniors from metropolitan and nonmetropolitan areas were about equally likely to report being victimized at school in the previous 12 months (see supplemental table 47-2).
- High school seniors were more likely to report being threatened without a weapon at school than with a weapon during the previous 12 months (22 versus 13 percent) in 1996. Similarly, high school seniors were more likely to report being injured at school without a weapon than with a weapon in 1996 (12 versus 5 percent).

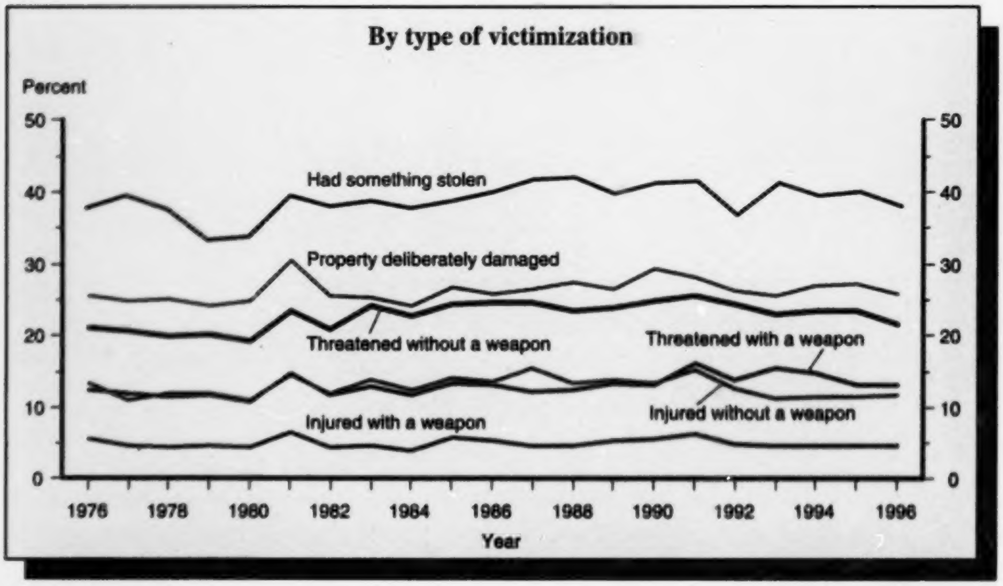
Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization: 1976–96

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
1976	*38.1	25.8	5.7	12.5	13.6	21.3
1977	39.7	24.9	4.8	12.2	11.1	20.7
1978	37.8	25.3	4.6	11.6	12.2	20.0
1979	33.6	24.2	4.8	11.9	12.2	20.2
1980	34.1	25.1	4.5	10.9	11.1	19.3
1981	39.8	30.6	6.6	14.8	14.6	23.7
1982	38.2	25.7	4.6	11.9	12.1	21.1
1983	39.0	25.5	4.9	13.0	14.0	24.3
1984	38.0	24.2	4.0	11.9	12.5	22.9
1985	39.1	26.9	5.9	13.5	14.2	24.6
1986	40.2	25.9	5.4	13.2	13.8	24.8
1987	42.0	26.6	4.9	12.4	15.5	24.8
1988	42.2	27.5	4.7	12.5	13.5	23.7
1989	40.1	26.6	5.6	13.6	14.0	24.0
1990	41.6	29.4	5.8	13.2	13.6	25.1
1991	41.7	28.3	6.5	16.3	15.3	25.8
1992	37.1	26.4	5.1	14.0	12.8	24.6
1993	41.4	25.8	4.7	15.6	11.4	23.1
1994	39.7	27.2	4.7	15.0	11.7	23.7
1995	40.3	27.3	4.9	13.3	11.6	23.5
1996	38.3	25.9	4.9	13.2	11.8	21.6

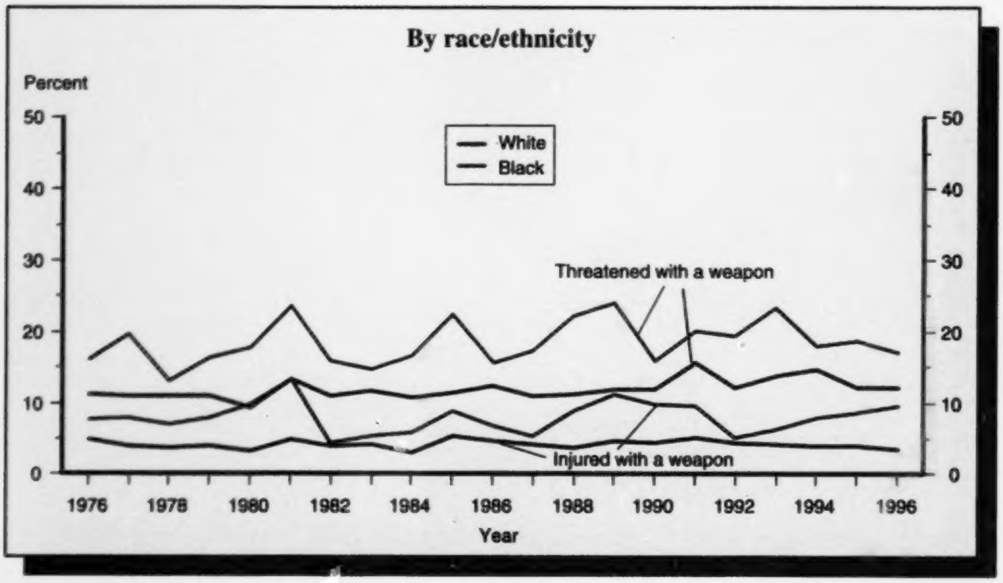
* Revised from previously published figure.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Percentage of high school seniors who reported being victimized at school during the previous 12 months: 1976–96



By type of victimization



By race/ethnicity

NOTE: The 1976 figure for having had something stolen is revised from the previously published figure.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Teacher perceptions of student and parent problems

Students benefit most from their schools' offerings when they arrive in good health and are enthusiastic about learning. Students who are apathetic about school reduce their own chances for success and may be disruptive in the classroom. Those who have serious health problems, use alcohol, or abuse drugs are often unable to perform at their best. Parental involvement can improve teachers' ability to work well with individual students and create a school climate conducive to effective learning, but parents sometimes have their own problems that interfere with their ability to provide such support. Teachers' perceptions of the seriousness of student and family problems provide an important indication of the climate in which instruction is taking place.

- In school year 1993–94, 28 percent of public school teachers reported that lack of parent involvement was a serious problem in their schools, a slight increase from 25 percent in school year 1990–91 (see supplemental table 48-1).
- In both years, the percentage of teachers who thought that lack of parent involvement was a serious problem increased as the percentage of low income students who received free or reduced-price lunch increased. The percentage of teachers who thought that parent alcohol or drug abuse was a serious problem in their schools also increased as the percentage of low income students increased.
- Twenty-four percent of all public school teachers reported that student apathy was a serious problem in their schools in school year 1993–94. Teachers in secondary schools were especially likely to do so. The percentage who thought that student apathy was a serious problem was lower in schools with 0–5 percent low income students than in other schools.
- In school year 1993–94, as the percentage of low income students who received free or reduced-price lunch increased, the percentages of public school teachers who reported that student pregnancy, poor nutrition, and poor health were serious problems increased.

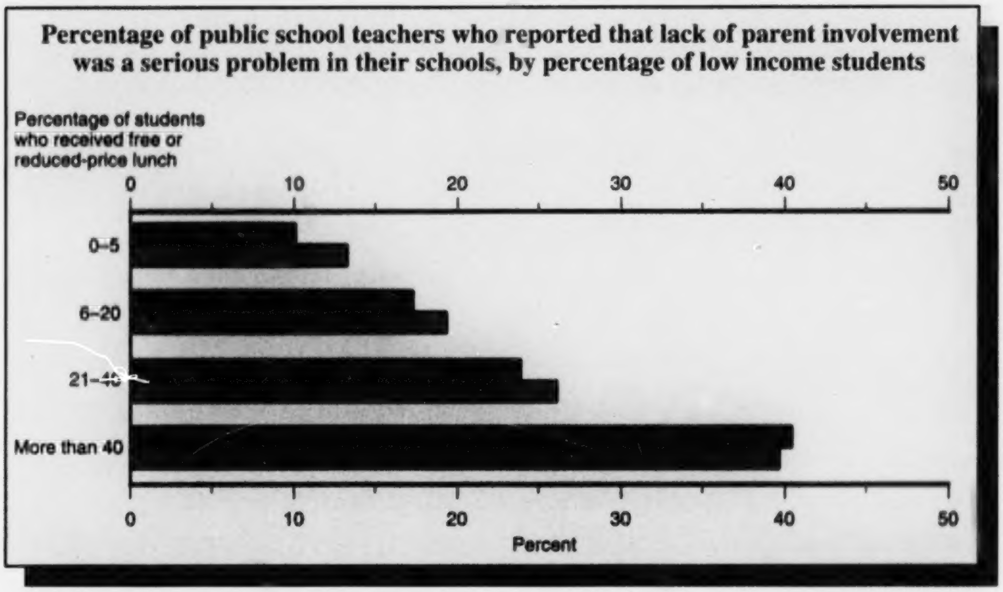
Percentage of public school teachers who reported that various parent and student behaviors and attitudes were serious problems in their schools, by teacher level and percentage of low income students: School year 1993–94

	Problems associated with parent		Problems associated with student					
Teacher level and percentage of low income students	Lack of involvement	Alcoholism and/ or drug abuse	Apathy	Alcohol use	Poor nutrition	Drug abuse	Poor health	Preg-nancy
Total	**27.5**	**13.0**	**23.6**	**9.3**	**8.2**	**5.7**	**5.0**	**4.1**
Teacher level								
Elementary	21.6	13.3	11.8	1.2	9.3	0.6	5.8	2.5
Secondary	34.0	12.7	36.3	18.0	7.0	11.2	4.1	5.7
Percentage of students who received free or reduced-price lunch								
0–5	13.3	5.0	17.7	12.7	2.1	7.0	1.3	2.2
6–20	19.4	7.2	23.5	13.4	3.4	7.4	1.8	3.1
21–40	26.1	11.0	24.3	8.5	7.3	5.3	4.1	3.2
More than 40	39.7	22.1	25.3	5.4	14.5	3.9	9.4	5.5

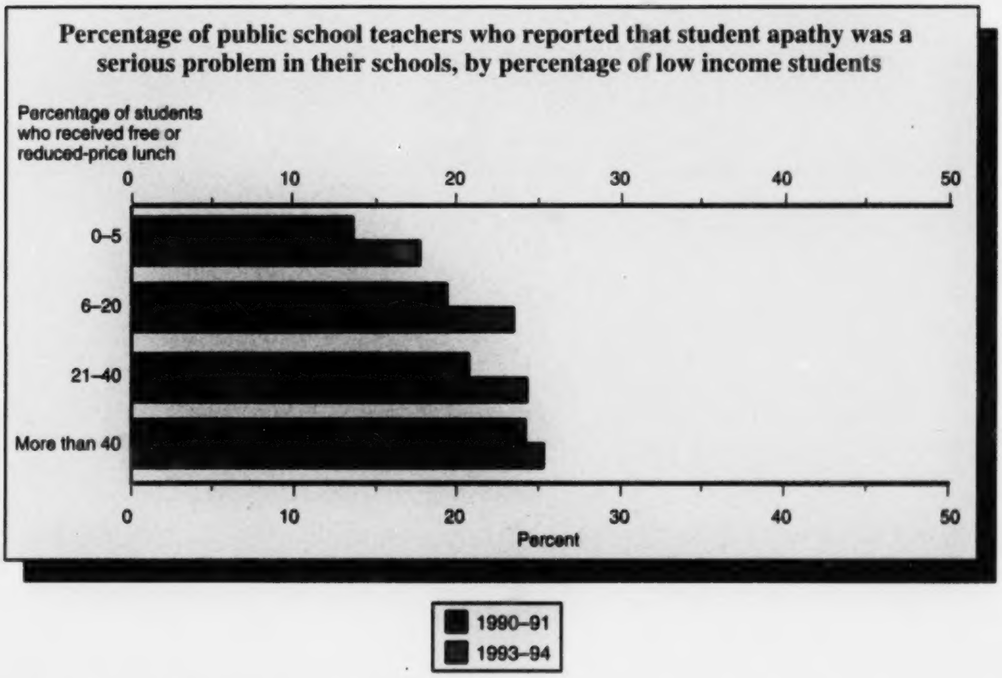
NOTE: See the supplemental note to *Indicator 40* for the definition of teacher level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School and Public School Teacher questionnaires).

Teachers' perceptions of parent and student behaviors and attitudes that are serious problems in their schools: School years 1990–91 and 1993–94



Percentage of public school teachers who reported that lack of parent involvement was a serious problem in their schools, by percentage of low income students



Percentage of public school teachers who reported that student apathy was a serious problem in their schools, by percentage of low income students

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 and 1993–94 (Public School and Public School Teacher questionnaires).

Parent involvement in school-related activities

One of the National Education Goals calls for an increase in parent involvement in children's education. This involvement requires an active partnership between the parent and the school. Some schools have adopted practices or policies that encourage parents to become more involved in their children's school activities and events. These practices give parents the opportunity to actively participate in their children's education and encourage their children to participate in school activities and events.

- In 1996, parents of more than 80 percent of students reported attending a general meeting or a scheduled meeting with their child's teacher. Sixty-six percent of students had parents who reported attending a school event, while 40 percent had parents who reported volunteering or serving on a school committee.
- Parents of black and Hispanic students were more likely than parents of white students to help their children with homework three or more times a week.
- Parents' participation in school activities, such as attending general meetings or school events and volunteering at school, was associated with their educational attainment. As parents' educational attainment increased, so did their rates of participation in school activities.
- Parents of children who lived in households with two biological or adoptive parents were more likely than parents of children who lived in households with one biological or adoptive parent to attend general school meetings or school events, act as a volunteer, or serve on a school committee.

Percentage of students whose parents reported participating in their child's school activities and helping their child with homework, by selected characteristics: 1996

	Participated in school activities[1]				Helped with homework[2]		
Selected characteristics	Attended general meeting	Attended scheduled meeting with teacher	Attended school event	Acted as a volunteer or served on a committee	Never or less than once a week	1–2 times a week	3 or more times a week
Total	**87.8**	**84.0**	**66.1**	**39.6**	**26.7**	**35.2**	**38.2**
Race/ethnicity							
White	88.2	83.0	70.9	44.5	28.2	37.0	34.9
Black	86.3	86.5	56.0	29.5	21.9	30.0	48.1
Hispanic	87.3	85.1	54.8	27.7	25.5	31.2	43.3
Parents' highest education level							
Less than high school diploma	81.3	83.7	42.2	18.3	28.8	30.1	41.1
High school diploma or GED	85.1	84.4	59.5	31.1	26.4	34.2	39.4
Some college/vocational/technical	87.4	83.6	68.4	40.2	26.4	35.8	37.8
Bachelor's degree	92.9	84.2	75.6	52.2	25.4	38.8	35.8
Graduate/professional school	92.7	83.8	81.0	56.8	27.9	35.1	37.0
Family structure							
Two biological or adoptive parents	89.1	83.9	70.7	47.6	26.5	34.9	38.5
One biological or adoptive parent	86.2	85.0	59.4	29.3	26.1	34.4	39.5
One biological/adoptive and one step parent	85.8	82.3	62.9	27.0	26.6	39.5	33.9
Other relatives	81.5	81.8	50.4	21.3	32.5	33.2	34.3

[1] Questions were asked of parents with students in preprimary school through grade 12.

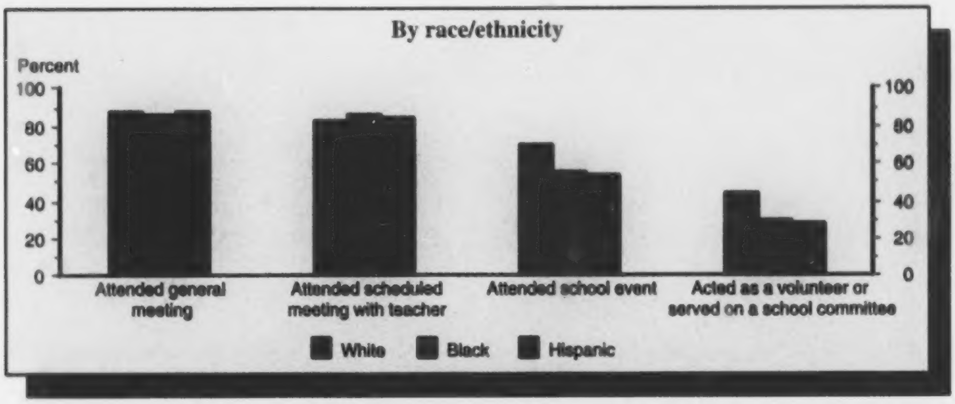
[2] Questions were asked of parents with students in grades 1–12.

NOTE: Included in the totals but not shown separately are other racial/ethnic groups and types of family structures. Parents of ungraded students or children who were home schooled were not included in this analysis.

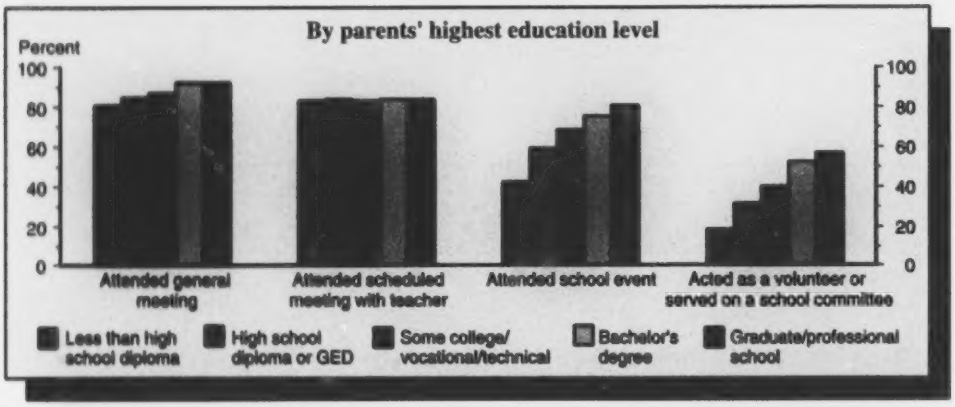
See the supplemental note to this indicator for a detailed discussion of school activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education component).

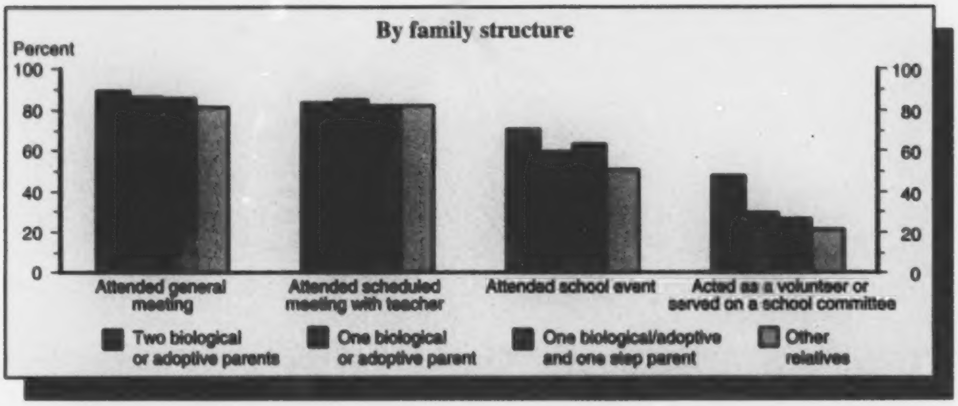
Percentage of students whose parents reported participating in their child's school activities, by type of involvement and selected characteristics: 1996



By race/ethnicity



By parents' highest education level



By family structure

NOTE: See the supplemental note to this indicator for a detailed discussion of school activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education component).

College and university enrollment, by control and type of institution

Colleges and universities offering 2- and 4-year programs under public and private control address different student needs. When selecting a higher education institution, students' choices are affected by the various kinds of services that institutions offer, the cost of attendance, and the availability of student financial aid. Fluctuations in enrollment among the different types of institutions may indicate a shift in student needs and interests.

- Between 1985 and 1992, enrollment in all higher education institutions increased. However, in 1993, enrollment decreased slightly and remained fairly stable through 1995 (see supplemental table 50-1).
- The distribution of total enrollment between public and private institutions changed little over the last two decades. Public institutions continue to enroll nearly 8 out of every 10 students.
- Between the mid-1980s and the early 1990s, enrollment in both public 2-year and 4-year institutions increased annually, then fell slightly between 1992 and 1995.
- Enrollment in private 4-year institutions increased steadily between 1985 and 1995. On the other hand, enrollment in private 2-year institutions fluctuated between 1985 and 1990, and then decreased between 1991 and 1995 (see supplemental table 50-1).

Index and percentage distribution of total enrollment in higher education, by control and type of institution: Fall 1972–95

	Index of total enrollment (1981=100)					Percentage distribution of total enrollment				
Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year[1]	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
1972	74.5	85.7	58.9	81.5	48.9	100.0	48.1	28.7	22.0	1.3
1974	82.6	91.0	73.3	85.0	50.3	100.0	46.0	32.1	20.7	1.2
1976	89.0	94.9	83.7	89.5	55.9	100.0	44.5	34.1	20.2	1.2
1978	91.0	95.1	86.5	93.2	65.7	100.0	43.6	34.4	20.6	1.4
1980	97.8	99.3	96.6	98.1	83.9	100.0	42.4	35.8	20.2	1.6
1981	100.0	100.0	100.0	100.0	100.0	100.0	41.8	36.2	20.1	1.9
1982	100.4	100.2	100.9	99.5	107.0	100.0	41.7	36.4	19.9	2.0
1984	99.0	100.6	95.5	101.0	106.9	100.0	42.5	35.0	20.5	2.1
1986	101.1	102.6	98.5	101.4	112.9	100.0	42.4	35.3	20.2	2.1
1988	105.5	107.3	103.0	105.8	110.3	100.0	42.5	35.4	20.2	2.0
1990	111.7	113.2	111.5	109.7	103.4	100.0	42.3	36.2	19.8	1.8
1991	116.1	114.3	120.6	112.6	104.9	100.0	41.1	37.6	19.5	1.7
1992	117.1	114.2	122.4	115.1	101.0	100.0	40.7	37.9	19.8	1.6
1993	115.6	113.3	119.1	116.0	97.0	100.0	40.9	37.3	20.2	1.6
1994	115.4	112.8	118.5	117.5	93.9	100.0	40.8	37.2	20.5	1.5
1995[2]	115.3	112.5	117.8	118.7	91.2	100.0	40.8	37.0	20.7	1.5

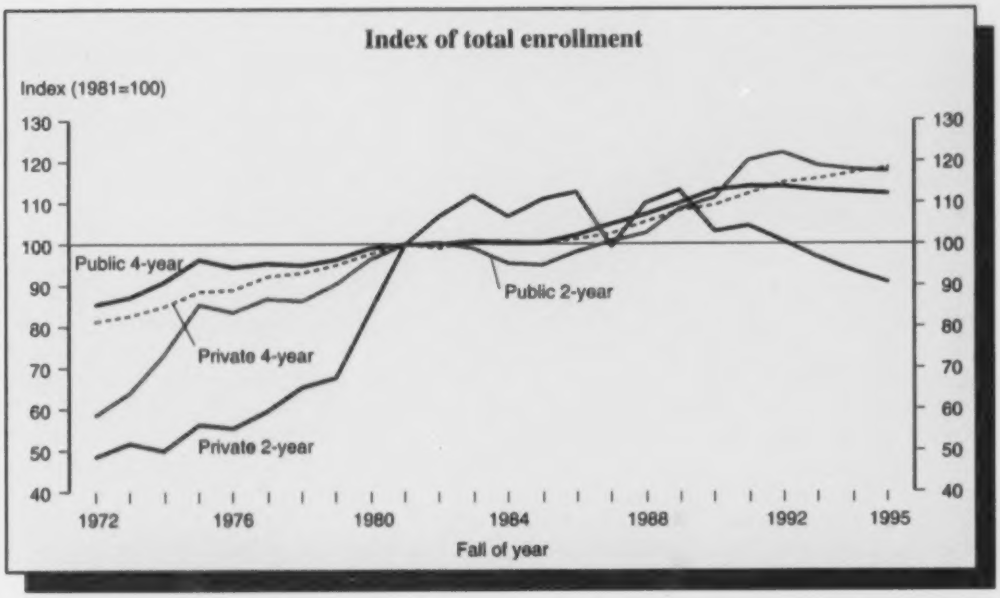
[1] Data for 1982–94 are revised from previously published figures.

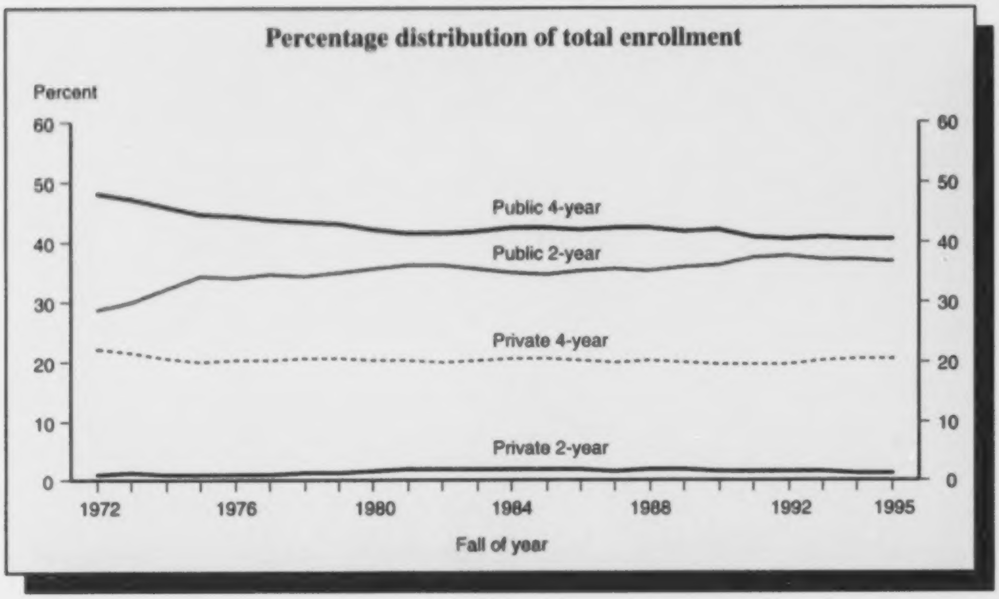
[2] Preliminary data.

NOTE: The index of total enrollment in higher education is calculated as the number of students enrolled in higher education institutions in a given year divided by the number of students enrolled in higher education institutions for the year 1981. A value greater than 100 indicates that more students were enrolled in higher education institutions that year than in 1981, while a value less than 100 indicates that fewer students were enrolled that year relative to 1981. Increases in enrollments in private 2-year institutions during 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on IPEDS/HEGIS "Fall Enrollment" surveys).

Total enrollment in higher education institutions, by control and type of institution: Fall 1972–95





NOTE: Increases in enrollments in private 2-year institutions during 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 1997 (based on IPEDS/HEGIS "Fall Enrollment" surveys).

Racial and ethnic distribution of college students

Colleges and universities seek diversity in their student bodies; variety in the backgrounds and interests of students enhances the learning environment. The racial/ethnic mix of college students is one aspect of a diverse student body. Variations in the racial/ethnic composition of college enrollment suggest differences in the needs, interests, and backgrounds of the student population.

- The student body at the Nation's colleges and universities has become increasingly heterogeneous since the mid-1970s. The percentage of minority students increased from 15 percent of all students in fall 1976 to 25 percent of all students in fall 1995. This increase was due primarily to the growth in the enrollment of Hispanic and Asian/Pacific Islander students, whose enrollment as a percentage of all college students increased about 4 percentage points for each group.
- Black students accounted for 10 percent of the total enrollment at colleges and universities in fall 1995. Hispanics made up 8 percent of enrolled students; Asian/Pacific Islanders, 6 percent; and American Indian/Alaskan Natives, 1 percent.
- In fall 1995, minority students made up a greater proportion of the student body at 2-year than at 4-year institutions (29 versus 22 percent).
- The percentages of public 2-year college students who were black and Hispanic were similar; however, the percentage of students enrolled in 4-year institutions who were black was about twice that of Hispanics in fall 1995.

Percentage distribution of total enrollment in higher education institutions, by race/ethnicity and control and type of institution: Fall 1976–95

Fall of year and control and type of institution	U.S. residents[1]						Nonresident alien
		Minority					
	White	Total minority	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaskan Native	
	All institutions						
1976	82.6	15.4	9.4	3.5	1.8	0.7	2.0
1978	81.9	15.9	9.4	3.7	2.1	0.7	2.3
1980	81.4	16.1	9.2	3.9	2.4	0.7	2.5
1982	80.7	16.6	8.9	4.2	2.8	0.7	2.7
1984	80.2	17.0	8.8	4.4	3.2	0.7	2.7
1986	79.3	17.9	8.7	4.9	3.6	0.7	2.8
1988	78.8	18.4	8.7	5.2	3.8	0.7	2.8
1990	77.6	19.6	9.0	5.7	4.1	0.7	2.8
1991	76.5	20.6	9.3	6.0	4.4	0.8	2.9
1992	75.1	21.8	9.6	6.6	4.8	0.8	3.1
1993	74.1	22.7	9.9	6.9	5.1	0.9	3.2
1994	73.0	23.8	10.1	7.3	5.4	0.9	3.2
1995	72.3	24.5	10.3	7.7	5.6	0.9	3.2
	By control and type of institution: Fall 1995[2]						
Public	71.6	25.7	10.5	8.4	5.8	1.0	2.7
Private	74.6	20.4	9.9	4.9	5.0	0.6	5.0
4-year	74.3	21.5	9.7	5.5	5.5	0.7	4.2
Public	74.0	22.3	9.8	6.0	5.7	0.9	3.6
Private	74.9	19.8	9.5	4.7	5.2	0.5	5.2
2-year public	69.0	29.4	11.1	11.2	5.8	1.2	1.6

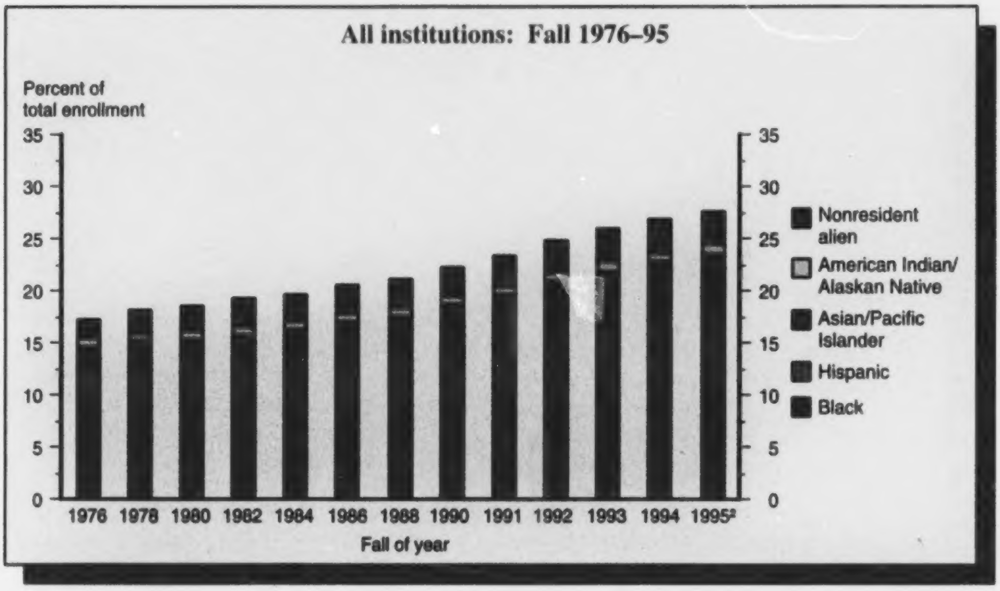
[1] Includes U.S. citizens and resident aliens.

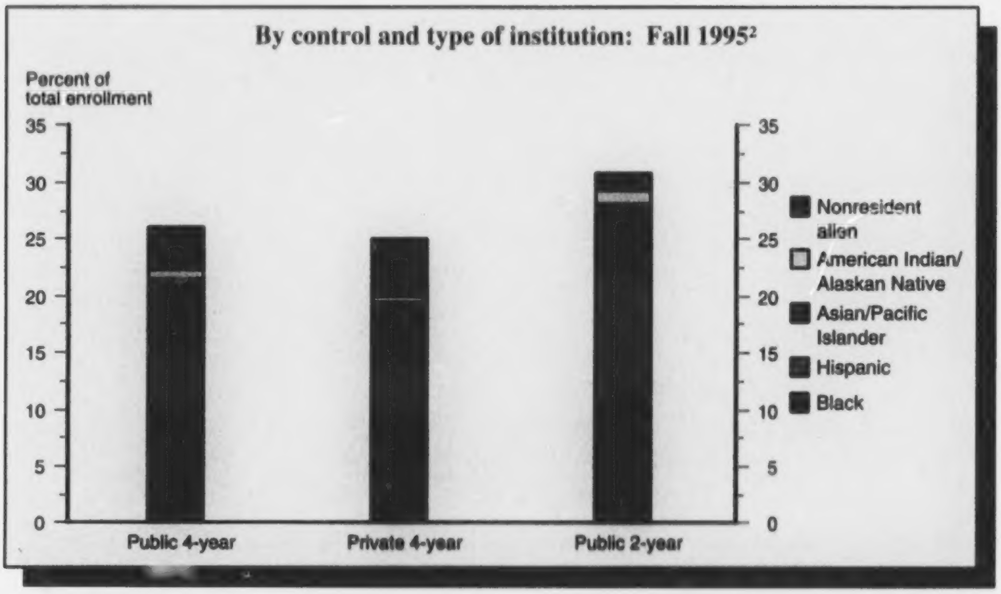
[2] Estimates based on preliminary data.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on the IPEDS/HEGIS "Fall Enrollment" surveys).

Percentage of minority[1] and nonresident alien enrollment in higher education institutions





[1] Includes U.S. citizens and resident aliens.

[2] Estimates based on preliminary data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on the IPEDS/HEGIS "Fall Enrollment" surveys).

Undergraduates who work while enrolled in college

Faced with increases in education costs, many undergraduates rely heavily on work to help pay for their college education. While having some work experience improves the employment prospects of new college graduates, too many hours spent at work may have an adverse effect on their academic performance. If working impedes students' progress toward attaining a degree, then the primary reason for that work is not fully realized.

- In 1995–96, four out of five undergraduates reported working while they were enrolled in postsecondary education. One-half reported that the primary reason they worked was to help pay for their education, and slightly less than one-third (29 percent) considered themselves primarily as employees who were also taking classes. Students who worked to pay school expenses reported working an average of 25 hours per week while enrolled, while employees who took classes worked an average of 39 hours per week (see supplemental table 52-1).

- Among students who worked to pay school expenses and who also attended school exclusively full time, about one in five (19 percent) also worked full time, and about one-quarter (27 percent) of full-time students worked 21 to 34 hours per week while enrolled. However, students who attended college exclusively part time were much more likely to work full time (45 percent) than those attending exclusively full time (see supplemental table 52-1).

- Among students who worked to pay school expenses, the more hours they worked, the more likely they were to report that their work schedule limited their class schedule, reduced the number of classes they could take, and reduced their class choices.

- Work also affected grades; the more hours students who worked to pay school expenses were employed, the more likely they were to report that work had a negative effect on their grades. More than one-half (55 percent) of students who worked full time reported a negative effect on their grades, compared to about one-third of students who worked 16–20 hours and less than one-fifth of those who worked 1–15 hours.

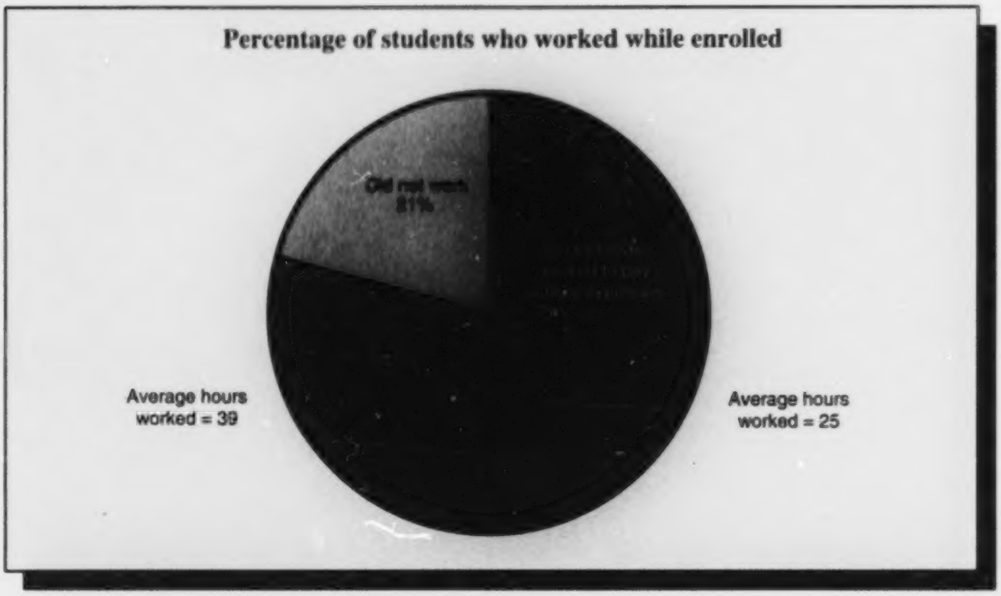
Percentage of undergraduates who worked to pay school expenses who reported various effects of work on their studies, by average hours worked while enrolled: Academic year 1995–96

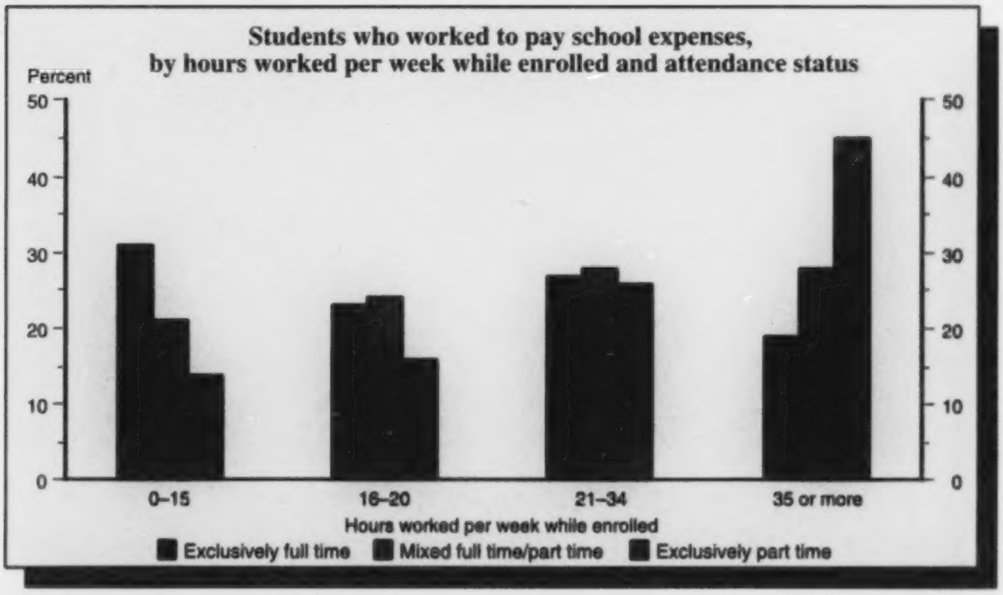
	Course-taking effects			Effect on grades*		
Average hours worked while enrolled	Limited class schedule	Reduced class choices	Limited number of classes	Positive effect	No effect	Negative effect
Total	**39.5**	**36.1**	**30.4**	**14.8**	**48.4**	**36.8**
1–15	21.7	16.3	15.0	22.3	60.7	17.1
16–20	31.4	27.8	23.5	13.8	51.8	34.3
21–34	41.9	38.4	31.9	11.5	42.6	46.0
35 or more	61.1	59.8	50.6	9.7	35.0	55.4

* Only dependent students (67 percent of students who worked to pay school expenses) were asked this question.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Employment and attendance status of undergraduates: Academic year 1995–96


Percentage of students who worked while enrolled


Students who worked to pay school expenses, by hours worked per week while enrolled and attendance status

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Financial and Human Resources of Educational Institutions

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Financial and Human Resources of Educational Institutions

Education officials at our Nation's schools, colleges, and universities continually face the challenge of providing a quality education despite constraints on the financial and human resources available to them. While postsecondary institutions must maintain a balance between expenditures and revenues to make higher education financially accessible, elementary and secondary schools face other issues, including increasing student exposure to well-qualified teachers and determining methods of attracting and retaining quality teachers. Additionally, the requirement to raise the quality of education, at all levels, has become more imperative as Americans feel increasing competitive pressure from the global marketplace.

Financial resources

The United States spends a substantial amount of its financial resources on education. By measuring per pupil expenditures at the elementary/secondary and postsecondary levels, policymakers and education officials can more effectively determine how and where these resources are being utilized.

Elementary/secondary education

Public elementary and secondary spending can be divided into three main functional areas: instruction, support services, and capital outlay. The distribution of expenditures across functional areas indicates how public school systems allocate funds to meet their specific needs. In the 1994–95 school year, for example, public schools spent $7,163 per pupil (in 1997 constant dollars). Of that amount, more than half ($3,865) was spent on instruction, which includes teacher salaries and benefits, supplies, and purchased instructional services. Between the 1989–90 and 1994–95 school years, the percentage of total expenditures per pupil that public schools spent on instruction and capital outlay increased slightly, while the percentage spent on support services decreased (*Indicator 53*).

Higher education

Because differences in institutional spending can affect the quality of instruction and learning experiences, examining variations in how expenditures are divided among functional areas can provide insight into how postsecondary institutions are organized and managed. Between 1985 and 1995, overall spending per full-time-equivalent (FTE) student increased at all types of higher education institutions. In 1997 constant dollars, increases ranged from 7 percent at public 2-year colleges to 37 percent at private universities (*Indicator 55*). Although instructional expenditures per FTE student increased during this period, instructional spending as a percentage of total expenditures fell approximately 3 percentage points at public universities, public 4-year colleges, and private 4-year colleges. At private universities and public 2-year colleges, instructional spending as a percentage of total expenditures remained similar (table 55-1).

A substantial proportion of higher education revenue is made up of student tuition and fees, government appropriations, and private gifts and endowments. Since access to higher education is partially determined by its cost to students, changes in the relative size of these revenue sources can influence a student's decision to pursue a degree in higher education. Between 1985 and 1995, government appropriations per FTE student fell both in 1997 constant dollars and as a share of all revenue at public universities. For example, at public universities, government appropriations per FTE student decreased from $9,098 to $7,714 (in 1997 constant dollars) and from 53 to 42 percent as a share of all revenue. During this period, tuition and fee revenue per FTE student increased at both public and private institutions. At public universities, tuition and fee revenue rose from $3,121 to $4,426 (in 1997 constant dollars), while at private universities, such revenue rose from $12,023 to $16,344 (in 1997 constant dollars) (*Indicator 54*).

International comparisons

Expenditures on education vary considerably across countries in terms of the share of national resources devoted to education, the source of funds (public or private) spent on education, and the levels of education to which funds are allocated. In 1994, total expenditures on primary and secondary education made up 3.9 percent of the Gross Domestic Product (GDP) in the United States, whereas higher education expenditures made up 2.3 percent. While Canada and France spent a larger percentage of their GDP on primary and secondary education, of the G-7 countries, only Canada spent a larger proportion than the United States for higher education and for all levels of education combined (*Indicator 56*).

Human resources

Teachers are the most vital human resource for schools, and understanding the teacher work force is crucial to providing education to the Nation's students. Examining the career and salary trends of teachers as well as their educational backgrounds and qualifications can provide a glimpse into the Nation's most important education resource.

Teacher attrition

Teacher attrition is the largest single factor in determining the demand for additional teachers in the Nation's schools. While the rate of teacher attrition is not as high today as it was in the 1960s and 1970s, it is still important to study attrition patterns and how they affect the Nation's future teacher workforce, particularly as the current one ages. Six percent of full-time public school teachers and 10 percent of full-time private school teachers who taught during the 1993–94 school year left teaching before the 1994–95 school year. Attrition was highest among teachers age 60 and older (table 59-1). Of those public school teachers who left teaching between the 1993–94 and 1994–95 school years, the destination of leavers reported most was retirement; of their private school counterparts, the destination of leavers reported most was to pursue a career outside of education (*Indicator 59*).

Teacher qualifications and training

Concern about the quality of education in the United States has focused renewed interest on teacher qualifications, especially in the core subject areas: English, mathematics, natural sciences, and social sciences. In school year 1993–94, 15 to 32 percent of public secondary students and 11 to 36 percent of private secondary students were taught the core subjects by teachers who did not major in that subject at the undergraduate or graduate level. Public secondary students were more likely than private secondary students to be taught science by teachers who had not majored in science (*Indicator 58*). Students at public secondary schools with a high poverty level (40 percent of students eligible for free or reduced-price lunch) were more likely to be taught any of the core subjects by a teacher who had not majored in that subject than were students at public secondary schools with a low poverty level (5 percent or less eligible for free or reduced-price lunch) (table 58-1).

Teacher salaries

Methods of attracting and retaining quality teachers have been of increasing concern among education officials and have led to reforms designed to increase teacher benefits. Between 1980 and 1997, the average salary (adjusted for inflation) of all public school teachers increased 18 percent, rising from $33,039 to $38,921. However, most of this increase occurred during the 1980s. The average salary (adjusted for inflation) of beginning public school teachers decreased slightly between 1992 and 1997 (table 57-1). Public school teachers at central city schools with a high percentage of minority students (20 percent or more) had higher average salaries than teachers at central city schools with a low percentage of minority students (less than 20 percent). Regardless of minority enrollment, public school teachers in urban fringe schools had higher average salaries than their counterparts in central city and rural schools (*Indicator 57*).

Part-time higher education faculty

Part-time faculty provide postsecondary institutions with a flexible work force. In fall 1992, 42 percent of postsecondary faculty and staff at the undergraduate level worked part time, up from 33 percent in fall 1987 (table 60-1). In 1992, these faculty in the lowest academic ranks (e.g., instructor, lecturer) were more likely to be employed part time than postsecondary faculty with higher academic ranks (e.g., full, associate, and assistant professors). In fall 1992, 75 percent of instructors were employed part time, compared to 17 percent of full professors. Additionally, females were more likely to work part time at both public and private institutions than males (*Indicator 60*).

Public elementary and secondary expenditures per student

Public elementary and secondary spending can be divided into three main functional areas: instruction, support services, and capital outlay. How school districts spend the funds they receive is influenced by many factors, such as the overall level of funding; the organizational structure of district- and state-level goals, the differences in student needs (e.g., demand for special education services and programs for limited-English-proficient students); and the relative cost of educational resources (e.g., teacher salaries, building maintenance, and construction costs for new schools). The distribution of expenditures across functional areas is an indication of how different public school systems allocate funds to meet their specific needs.

- In the 1994–95 school year, public schools spent $7,163 per pupil (in 1997 constant dollars). Of that amount, more than half ($3,865) was spent on instruction, which includes teacher salaries and benefits, supplies, and purchased instructional services.
- Between the 1989–90 and 1994–95 school years, the percentage of total expenditures per pupil that public schools spent on instruction and capital outlay increased slightly, while the percentage spent on support services decreased.
- In the 1993–94 school year, relatively high wealth school districts (those with a median household income of $35,000 or more) spent more per pupil than school districts with less wealth. The distribution of expenditures across functional areas was similar regardless of the wealth of the school district (see supplemental table 53-1).

Public school expenditures per pupil (in 1997 constant dollars) and percentage distribution, by function: School years 1989–90 to 1994–95

						Percentage distribution				
School year	Total	Instruction	Support services	Capital outlay	Other	Total	Instruction	Support services	Capital outlay	Other
1989–90	$6,381	$3,405	$2,240	$533	$203	100.0	53.4	35.1	8.4	3.2
1990–91	6,494	3,460	2,259	560	216	100.0	53.3	34.8	8.6	3.3
1991–92	6,493	3,461	2,229	546	257	100.0	53.3	34.3	8.4	4.0
1992–93	6,690	3,570	2,274	586	260	100.0	53.4	34.0	8.8	3.9
1993–94	6,913	3,690	2,343	619	261	100.0	53.4	33.9	9.0	3.8
1994–95	7,163	3,865	2,396	628	274	100.0	54.0	33.5	8.8	3.8

NOTE: Percentages are revised from previously published figures. The number of pupils for a given school year includes those students enrolled in school as of October 1 of that school year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys.

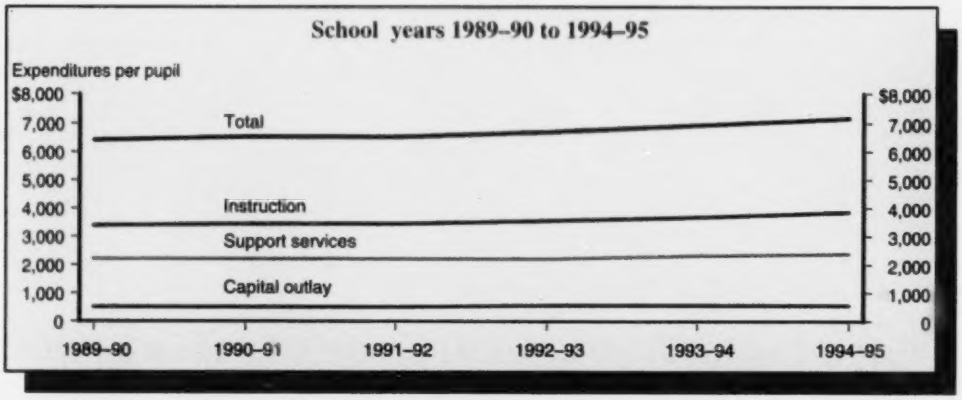
Public school expenditures per pupil (in 1997 constant dollars), by function and selected district characteristics: School year 1993–94

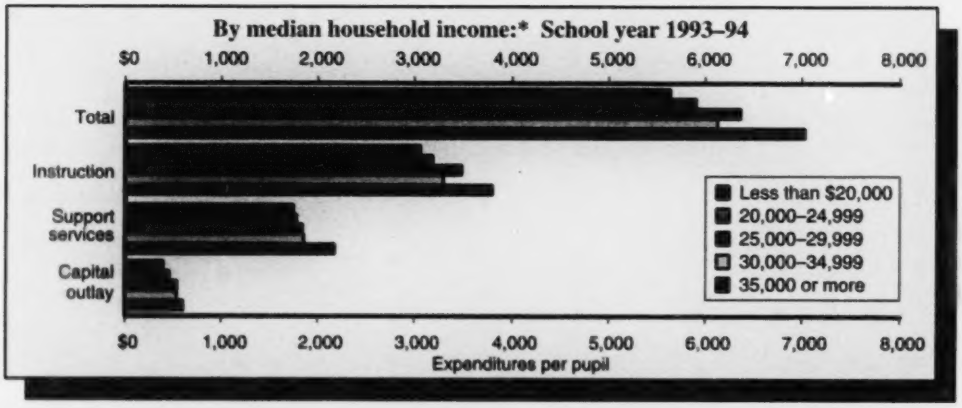
Selected district characteristics	Total	Instruction	Support services	Capital outlay	Other
Median household income					
Less than $20,000	$5,634	$3,052	$1,745	$407	$430
20,000–24,999	5,899	3,190	1,772	470	466
25,000–29,999	6,361	3,480	1,849	551	482
30,000–34,999	6,124	3,292	1,851	545	436
35,000 or more	7,027	3,806	2,174	606	441
Percentage of minority school-age children					
Less than 5	6,347	3,492	1,838	509	508
5–19	6,362	3,426	1,923	620	393
20–49	6,018	3,204	1,878	536	400
50 or more	6,847	3,779	2,054	448	565

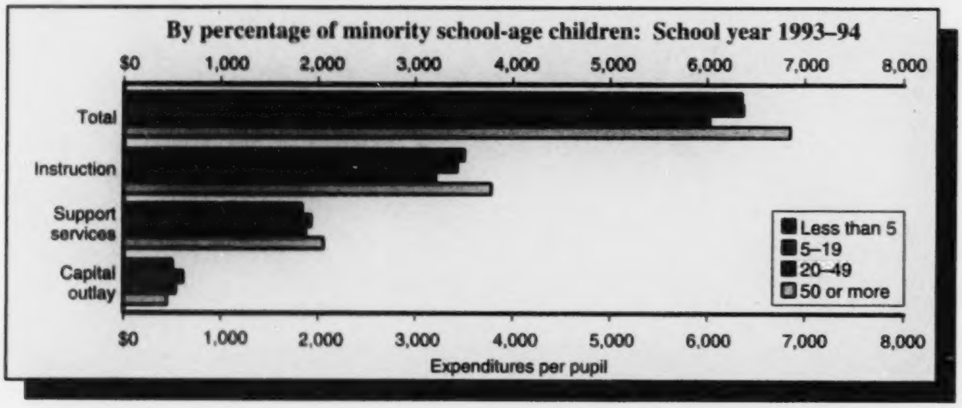
NOTE: Details may not add to totals due to rounding. The categories for median household income are based on 1990 Census data and are adjusted to 1993–94 constant dollars. See the glossary for definitions of specific expenditure functions. The number of pupils for a given school year includes those students enrolled in school as of October 1 of that school year. The Consumer Price Index (CPI) was used to adjust expenditures to 1997 constant dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Fiscal Data," 1993–94. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

Public school expenditures per pupil (in constant 1997 dollars), by function







* The categories for median household income are based on 1990 Census data and are adjusted to 1993–94 constant dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Fiscal Data," 1993–94. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

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Higher education revenues per student

A substantial proportion of higher education revenues is made up of student tuition and fees, government appropriations, and private gifts and endowments. Since access to higher education is partially determined by its cost to students, changes in the relative size of these revenue sources can influence a student's decision to pursue a higher education degree.

- The primary source of revenue for all public institutions comes from federal, state, and local government appropriations. Between 1985 and 1995, government appropriations per full-time-equivalent (FTE) student fell both in 1997 constant dollars and as a share of all revenue at public universities, dropping from $9,098 to $7,714 and from 53 to 42 percent (see supplemental table 54-1).

- Between 1985 and 1995, tuition and fees per FTE student increased both in constant dollars and as a share of all revenue at public institutions. At public universities, for example, tuition and fees rose from $3,121 to $4,426 in constant dollars and from 18 to 24 percent as a share of all revenue between 1985 and 1995 (see supplemental table 54-1).

- Between 1985 and 1995, average tuition and fee revenue per FTE student increased at private universities, rising from $12,023 to $16,344 in 1997 constant dollars. In addition, revenue from private gifts and endowment income per FTE student climbed by 33 percent (from $6,020 to $8,008), while remaining similar at private 4-year colleges.

General education revenues of institutions of higher education per full-time-equivalent (FTE) student (in 1997 constant dollars), by selected revenue sources and control and type of institution: Academic years ending 1977–95

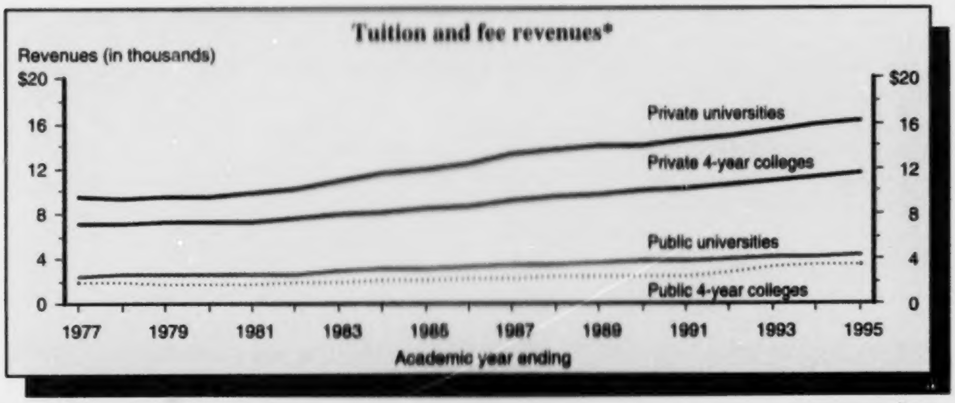
	Universities				Colleges					
	Private		Public		Private 4-year		Public 4-year		Public 2-year	
Academic year ending	Tuition and fees*	Gifts and endowment	Tuition and fees*	Government appropriations	Tuition and fees*	Gifts and endowment	Tuition and fees*	Government appropriations	Tuition and fees*	Government appropriations
1977	$9,505	$4,952	$2,577	$8,691	$7,197	$2,504	$1,933	$7,738	$1,055	$4,677
1978	9,474	4,902	2,606	8,869	7,231	2,428	1,905	7,898	1,013	4,721
1979	9,568	4,953	2,649	9,150	7,276	2,444	1,871	8,184	1,015	4,788
1980	9,604	4,956	2,617	8,960	7,345	2,543	1,850	8,266	1,019	4,675
1981	9,858	5,117	2,635	8,602	7,397	2,555	1,874	8,079	1,015	4,403
1982	10,224	5,152	2,756	8,405	7,620	2,638	1,961	8,040	1,072	4,342
1983	10,920	5,011	2,981	8,223	7,951	2,697	2,014	7,802	1,076	4,032
1984	11,627	5,733	3,105	8,539	8,206	2,725	2,180	7,723	1,117	4,115
1985	12,023	6,020	3,121	9,098	8,467	2,849	2,240	8,306	1,188	4,465
1986	12,436	6,233	3,302	9,306	8,707	2,896	2,324	8,466	1,207	4,674
1987	13,315	6,546	3,451	9,077	9,272	3,030	2,327	8,157	1,219	4,693
1988	13,678	6,811	3,618	9,162	9,527	3,015	2,421	8,241	1,204	4,584
1989	13,993	6,953	3,715	9,142	9,724	3,008	2,489	7,893	1,264	4,597
1990	14,123	7,069	3,803	9,016	10,014	2,948	2,532	7,706	1,264	4,410
1991	14,603	7,171	3,933	8,766	10,331	2,908	2,548	7,105	1,319	4,386
1992	14,969	7,171	4,097	8,166	10,685	2,784	2,875	7,047	1,384	4,134
1993	15,384	7,569	4,183	7,841	10,914	2,747	3,293	7,069	1,738	4,088
1994	15,892	7,772	4,291	7,576	11,232	2,731	3,465	7,145	1,823	4,207
1995	16,344	8,008	4,426	7,714	11,578	2,893	3,560	7,279	1,824	4,313

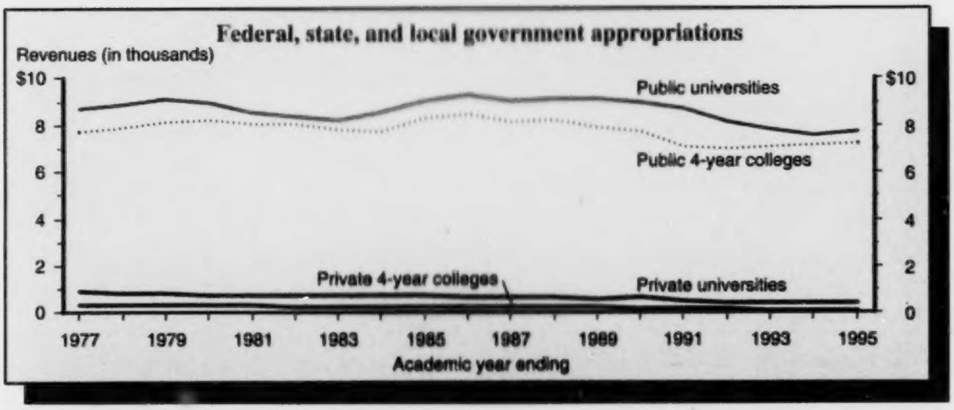
* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

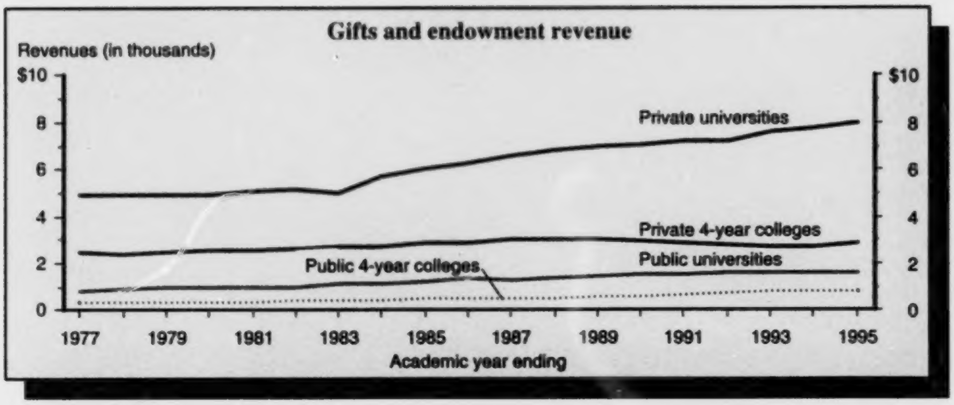
NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars, and the Consumer Price Index (CPI) was used to forecast the HEPI to July 1997. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. Data for "Gifts and endowment" and "Government appropriations" do not always match individual categories presented in table 54-2 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey, and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

Selected education revenues of institutions of higher education per FTE student (in 1997 constant dollars), by selected revenue sources and type of institution: Academic years ending 1977–95







* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey, and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

Higher education expenditures per student

Faculty and staff salaries and institutionally supported research account for a large share of higher education expenditures. Spending across various expenditure categories is determined by the missions of higher education institutions. Since differences in institutional spending can affect the quality and nature of instruction and learning experiences, studying variations in expenditure categories can provide some insight into how higher education institutions are organized and operate.

- Overall spending per full-time-equivalent (FTE) student increased at all types of higher education institutions between 1985 and 1995. In 1997 constant dollars, increases ranged from 7 percent at public 2-year colleges (from $6,334 to $6,776 per FTE student) to 37 percent at private universities (from $27,944 to $38,167 per FTE student).
- Although instructional expenditures per FTE student increased between 1985 and 1995, instructional spending as a percentage of total expenditures fell approximately 3 percentage points at public universities, public 4-year colleges, and private 4-year colleges. At private universities and public 2-year colleges, instructional spending as a percentage of total expenditures during this period remained similar (see supplemental table 55-1).
- Between 1985 and 1995, research expenditures increased by 35 percent in private universities (from $5,070 to $6,822 per FTE student) and 38 percent in public universities (from $3,268 to $4,511 per FTE student). Over the decade, research spending accounted for about 18 percent of total institutional expenditures in private universities, and rose from 19 to 22 percent of total spending in public universities (see supplemental table 55-1).
- In 1995, total expenditures per FTE student were higher at private universities than at public universities ($38,167 and $20,234, respectively). Likewise, total expenditures at private 4-year colleges were higher than those at public 4- and 2-year colleges ($17,409 versus $13,801 and $6,776, respectively).

Educational and general expenditures of institutions of higher education per full-time-equivalent (FTE) student (in 1997 constant dollars), by selected expenditure categories and control and type of institution: Academic years ending 1977–95

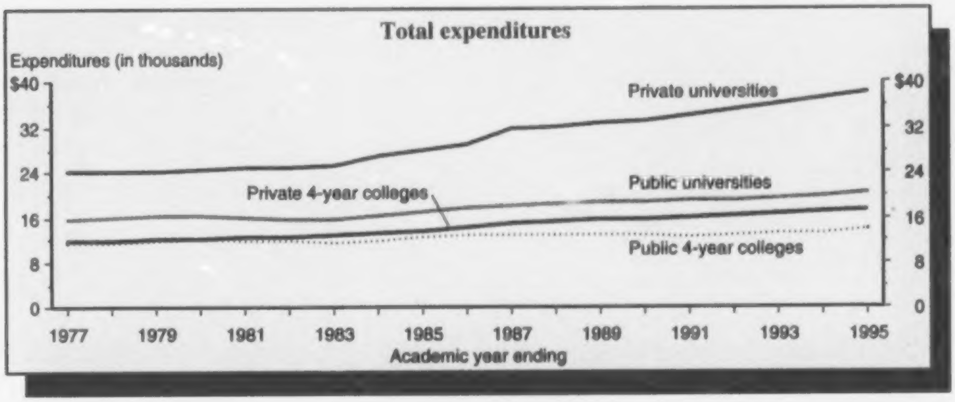
Academic year ending	Universities						Colleges					
	Private			Public			Private 4-year		Public 4-year		Public 2-year	
	Total	Instruction	Research	Total	Instruction	Research	Total	Instruction	Total	Instruction	Total	Instruction
1977	$24,245	$9,218	$5,106	$15,661	$6,107	$2,875	$11,952	$4,464	$11,420	$5,297	$6,155	$3,144
1978	23,959	9,092	4,978	15,801	6,199	2,932	11,899	4,462	11,518	5,325	6,188	3,131
1979	24,262	9,066	5,026	16,375	6,397	3,100	12,045	4,478	11,887	5,424	6,399	3,211
1980	24,613	9,319	5,052	16,201	6,279	3,158	12,251	4,492	12,019	5,392	6,292	3,164
1981	24,914	9,497	4,936	15,950	6,144	3,136	12,308	4,439	11,899	5,335	6,029	3,052
1982	24,817	9,692	4,698	15,724	6,104	3,028	12,465	4,500	11,840	5,405	6,023	3,065
1983	25,017	9,850	4,470	15,689	6,092	3,010	12,726	4,610	11,553	5,276	5,698	2,899
1984	26,851	10,355	4,761	16,069	6,197	3,072	13,154	4,730	11,674	5,269	5,779	2,936
1985	27,944	10,621	5,070	16,826	6,440	3,268	13,630	4,853	12,324	5,520	6,334	3,184
1986	29,000	10,953	5,361	17,481	6,588	3,440	14,099	4,944	12,729	5,733	6,521	3,254
1987	31,654	12,159	5,838	17,786	6,758	3,553	14,933	5,127	12,724	5,689	6,626	3,288
1988	32,058	12,034	6,001	18,269	6,820	3,763	15,305	5,214	12,983	5,789	6,538	3,217
1989	32,758	12,440	6,035	18,614	6,853	3,900	15,458	5,224	12,783	5,702	6,611	3,277
1990	33,122	12,526	6,171	18,566	6,790	3,966	15,718	5,270	12,899	5,726	6,432	3,203
1991	34,142	13,075	6,071	18,900	6,854	4,107	15,978	5,340	12,542	5,562	6,504	3,243
1992	35,155	13,415	6,127	18,804	6,776	4,133	16,387	5,423	12,708	5,489	6,210	3,124
1993	36,137	13,872	6,451	19,264	6,869	4,301	16,544	5,426	13,176	5,532	6,303	3,158
1994	37,180	14,301	6,564	19,646	6,936	4,395	16,934	5,476	13,329	5,613	6,622	3,268
1995*	38,167	14,630	6,822	20,234	7,164	4,511	17,409	5,619	13,801	5,768	6,776	3,322

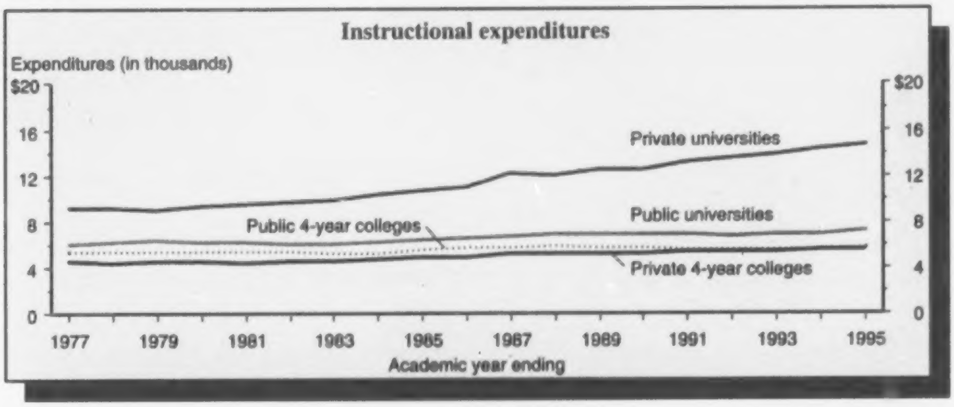
* Preliminary data.

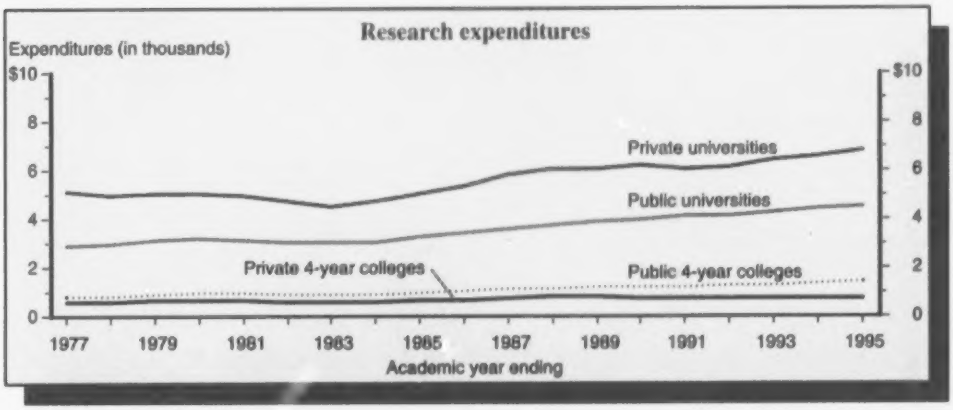
NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars, and the Consumer Price Index (CPI) was used to forecast the HEPI to July 1997. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on the IPEDS/HEGIS "Financial Statistics" surveys).

Educational and general expenditures of institutions of higher education per FTE student (in 1997 constant dollars), by type of institution: Academic years ending 1977–95


Total expenditures


Instructional expenditures


Research expenditures

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997* (based on the IPEDS/HEGIS "Financial Statistics" surveys).

International comparisons of expenditures for education

The proportion of total financial resources that a country chooses to invest in education is an indication of the relative importance that a country places on education, as well as an indication of where the responsibility lies for funding education in that country. International comparisons of expenditures for education vary considerably in the share of national resources devoted to education, the sources (public or private) of funds spent on education, and the levels of education to which funds are allocated.

- In 1994, total expenditures on primary and secondary education made up 3.9 percent of the Gross Domestic Product (GDP) in the United States, while higher education expenditures made up 2.3 percent. Total expenditures for all education levels and sources combined made up 6.6 percent of the GDP. Of the G-7 countries, Canada and France spent a larger percentage on primary and secondary education, and only Canada spent a larger fraction than the United States for higher education and for all levels combined.
- Some countries rely more heavily than others on expenditures from private sources to finance education. For example, in both the United States and Japan, the percentage of GDP spent on higher education from private sources (1.2 and 0.6, respectively) was higher than the percentage from public sources (1.1 and 0.5). In other G-7 countries, the percentage from private sources was much smaller than the percentage from public sources.
- In 1994, expenditures per student for the G-7 countries at the primary-secondary level ranged from $3,900 in the United Kingdom to $5,900 in the United States. For higher education, however, expenditures per student varied. The United States spent more per higher education student than any other G-7 country, and spent more than twice the amount spent in France, Italy, and the United Kingdom.

Public and private expenditures on educational institutions,[1] by level of education and country: 1994

	As a percentage of GDP					Per student[2]			
	Primary-secondary		Higher education		All levels and	Constant 1994 U.S dollars[3]		As a percentage of GDP per capita	
G-7 country	Public sources[4]	Private sources[5]	Public sources[4]	Private sources[5]	sources combined[6]	Primary-secondary[7]	Higher education	Primary-secondary[7]	Higher education
Canada	4.2	0.3	2.3	0.2	7.2	—	$11,300	—	56.0
France	4.0	0.3	0.9	0.2	6.2	$4,783	6,010	24.9	31.0
Germany	2.9	0.9	0.9	0.1	5.8	5,262	8,380	26.8	43.0
Italy	3.3	0.0	0.7	0.1	4.7	4,933	4,850	26.5	26.0
Japan	2.9	0.2	0.5	0.6	4.9	4,362	8,880	20.6	42.0
United Kingdom	3.8	—	1.0	0.0	—	3,914	7,600	22.2	43.0
United States	3.5	0.4	1.1	1.2	6.6	5,944	15,510	23.3	61.0

— Not available.

[1] Includes all institutions (public and private), except for Germany and Italy, which include only public institutions, and the United Kingdom, which includes public and government-dependent private institutions.

[2] Per-student expenditures are calculated based on full-time-equivalent (FTE) enrollment figures, and expenditures from both public and private sources, with the exception of the United Kingdom, for which private source data are unavailable.

[3] Purchasing Power Parity (PPP) indices were used to convert other currencies to U.S. dollars. Because the fiscal year has a different starting date depending on the country, within-country Consumer Price Indices (CPIs) were used to adjust the PPP indices to account for inflation. See the supplemental note to this indicator for further explanation.

[4] Public expenditures are defined as direct public expenditures on educational institutions plus public subsidies to households and other private entities for educational institutions (e.g., tuition and fees), excluding other public aid to students and households (e.g., subsidies for student living costs).

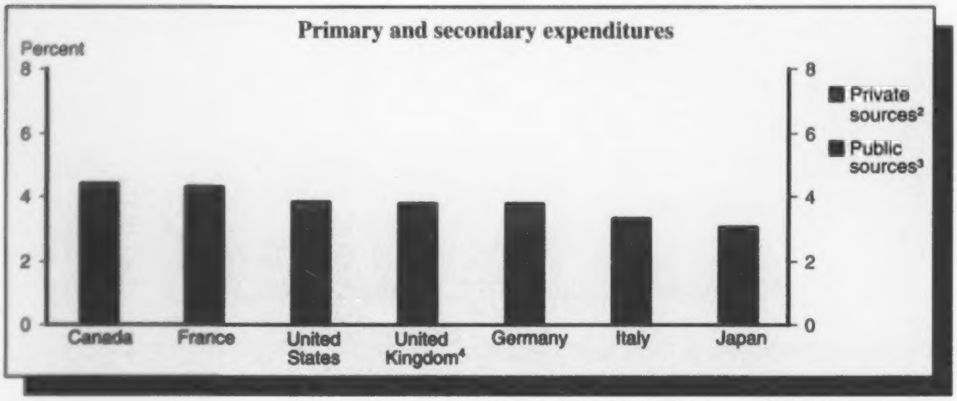
[5] Private expenditures are defined as private payments from households and other private entities to educational institutions, subtracting any portion derived from public subsidies.

[6] "All levels combined" includes expenditures on pre-primary education, and funds classified as "undistributed," a classification reserved for enrollments, expenditures, or programs that cannot be unambiguously assigned to the International Standard Classification of Education (ISCED) defined levels. Examples of undistributed education can include non-graded special education or recreational non-degree adult education programs.

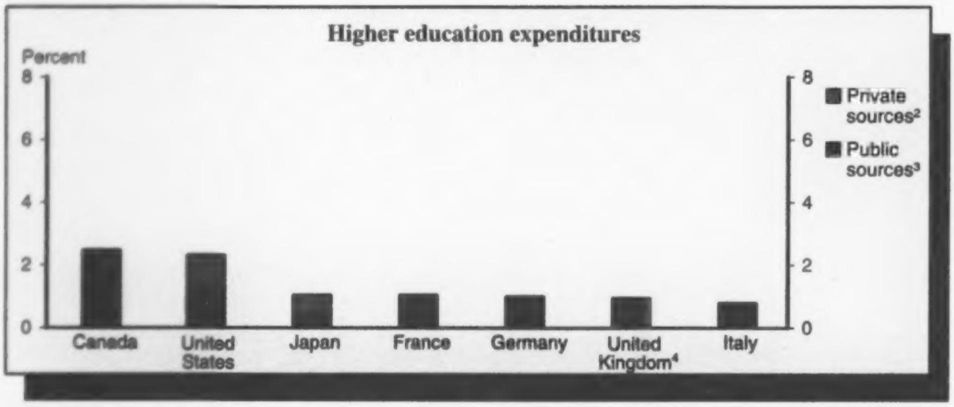
[7] Primary-secondary per-student expenditures were calculated by adding primary and secondary FTE enrollments and dividing the total FTE into total expenditures. See the supplemental note to this indicator for further discussion.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education At A Glance: OECD Indicators*, 1997.

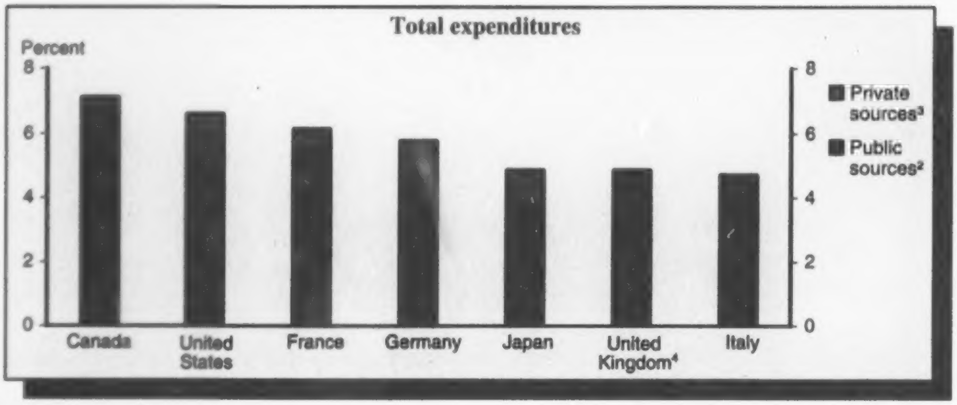
Public and private expenditures on educational institutions[1] in G-7 countries as a percentage of GDP, by level of education and source of funds: 1994



Primary and secondary expenditures



Higher education expenditures



Total expenditures

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[1] Includes all institutions (public and private), except for Germany and Italy, which include only public institutions, and the United Kingdom, which includes public and government-dependent private institutions.

[2] Private expenditures are defined as private payments from households and other private entities to educational institutions, subtracting any portion derived from public subsidies.

[3] Public expenditures are defined as direct public expenditures on educational institutions plus public subsidies to households and other private entities for educational institutions (e.g., tuition and fees), excluding other public aid to students and households (e.g., subsidies for student living costs).

[4] Data for the United Kingdom are not available.

NOTE: Private sources of funds for some countries are less than 1 percent; therefore, percentages may not be discernable in the graphs.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education At A Glance: OECD Indicators*, 1997.

Salaries of teachers

Methods of attracting and retaining quality teachers have been of increasing concern among education officials. These concerns have led to reforms designed to increase teacher benefits. These reforms include creating new career steps or paths, establishing teaching positions with greater authority and responsibility, instituting merit pay systems, and experimenting with teachers' salary structures. The implementation of reforms such as these has been associated with increases in teachers' salaries.

- While teacher salaries fluctuated during the 1970s, public school teachers' average salaries (adjusted for inflation) increased throughout the 1980s and into the early 1990s, reaching a peak in 1991. Since then, salaries have decreased slightly (see supplemental table 57-1).
- The average salary (adjusted for inflation) of beginning public school teachers was lower in 1997 than in 1972, even though their salaries increased 22 percent between 1980 and 1990, rising from $20,771 to $25,356. The average beginning teacher salary decreased slightly between 1992 and 1997, dropping from $25,996 to $25,462 (see supplemental table 57-1).
- Public school teachers at central city schools with a high percentage of minority students (20 percent or more) had higher average salaries than teachers at central city schools with a low percentage of minority students (less than 20 percent). Regardless of minority enrollment, public school teachers in urban fringe schools had higher average salaries than their counterparts in central city and rural schools.

Average annual salaries (in 1997 constant dollars) of public elementary and secondary teachers: School years ending 1976–97

School year ending	All teachers	Elementary teachers	Secondary teachers	Beginning teachers*
1976	$36,490	$35,563	$37,466	$24,305
1984	34,612	33,905	35,589	22,070
1992	39,584	38,905	40,472	25,996
1994	39,250	38,701	40,153	25,946
1995	39,092	38,531	39,941	25,779
1996	39,045	38,438	39,942	25,760
1997	38,921	38,375	39,731	25,462

* Salaries of beginning teachers are for the calendar year.

NOTE: Some data are revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*. American Federation of Teachers, *Survey and Analysis of Salary Trends 1997*, February 1998.

Average compensation (in 1997 constant dollars) received by full-time public school teachers, by urbanicity and percentage of minority students enrolled: Summer 1993 and school year 1993–94

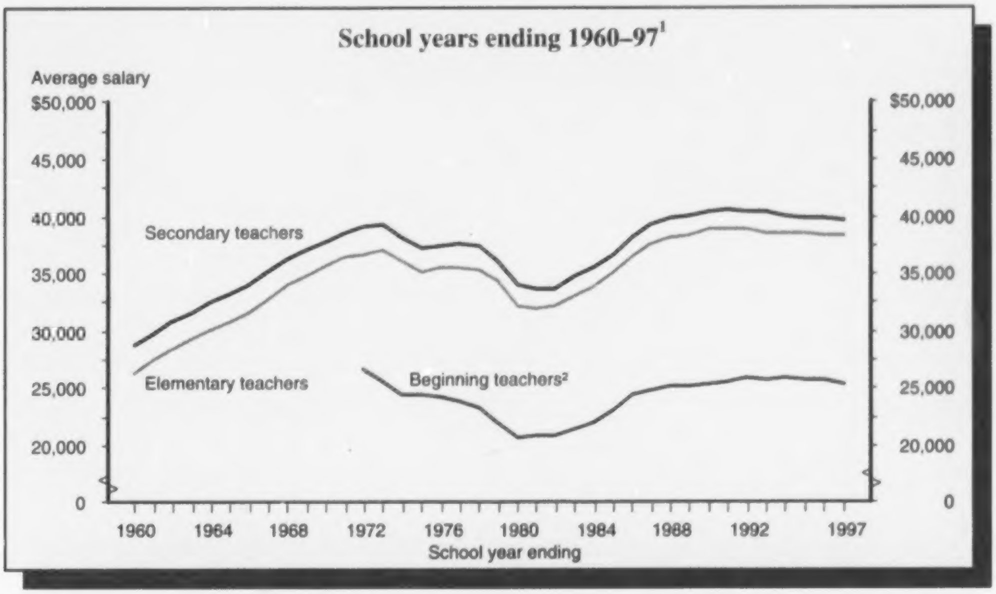
	School earnings*				
Urbanicity and percentage of minority students enrolled	Total school earnings	Base salary	Summer supplemental earnings	Other school compensation	Non-school compensation
Total	**$38,952**	**$37,512**	**$2,303**	**$2,383**	**$5,617**
Central city	39,377	37,837	2,587	2,432	6,035
Less than 20 percent	37,990	36,719	1,955	2,212	5,366
20 percent or more	39,694	38,110	2,690	2,456	6,177
Urban fringe/large town	43,529	42,060	2,312	2,489	5,578
Less than 20 percent	44,269	42,837	2,040	2,541	5,092
20 percent or more	42,558	41,049	2,500	2,430	5,914
Rural/small town	35,176	33,829	2,022	2,277	5,371
Less than 20 percent	36,106	34,721	1,960	2,310	5,518
20 percent or more	33,116	31,811	2,151	2,278	5,061

* Detailed school earnings were computed using data only from teachers who reported those earnings; therefore, details do not add to totals. Included in "total" and "other school compensation" are other sources of income reported after excluding outside income. Data for "Summer supplemental earnings" are for 1993.

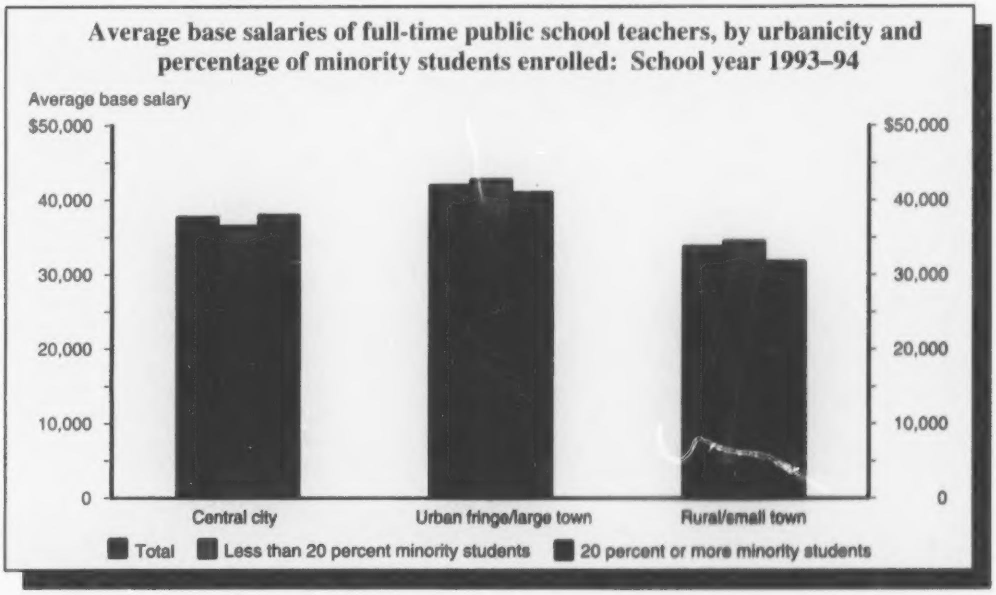
NOTE: See the glossary for the definition of urbanicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher Questionnaire).

Average annual salaries (in 1997 constant dollars) of public school teachers



School years ending 1960–97[1]



Average base salaries of full-time public school teachers, by urbanicity and percentage of minority students enrolled: School year 1993–94

[1] Plotted points for average annual salaries of teachers are even years 1960–68 and all years 1970–97. Plotted points for average beginning salaries of beginning teachers are even years 1972–90 and all years 1992–96.

[2] Salaries of beginning teachers are for the calendar year.

NOTE: See the glossary for the definition of urbanicity.

SOURCE: American Federation of Teachers, *Survey and Analysis of Salary Trends 1997*, February 1998. U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, and Schools and Staffing Survey, 1993–94 (Public School Teacher Questionnaire).

Education and certification of secondary teachers

Concern about the quality of education in the United States has focused interest on teacher qualifications and student exposure to well-qualified teachers, especially in the core subject areas: English, mathematics, natural sciences, and social sciences. Educational background is one measure of teachers' qualifications. Whether teachers either majored or minored or are certified in the fields they teach is an indication of their substantive and academic qualifications in those subjects.

- In school year 1993–94, 15 to 32 percent of public secondary students and 11 to 36 percent of private secondary students were taught the core subjects by teachers who did not major in that subject at the undergraduate or graduate level. Students in mathematics classes were more likely than students in any other core subject to be taught by a teacher who did not major in that field.
- Public secondary students were more likely than private secondary students to be taught science by teachers who had not majored in science.
- Students at public secondary schools with a high poverty level (more than 40 percent of students eligible for free or reduced-price lunch) were more likely to be taught any of the core subjects by a teacher who had not majored in that subject than were students at public secondary schools with a low poverty level (5 percent or less eligible for free or reduced-price lunch) (see supplemental table 58-1).
- Students at public secondary schools with a high percentage of minority enrollment (50 percent or more) were more likely to be taught English and mathematics by teachers who had not majored in those subjects than were students at secondary schools with a low percentage of minority enrollment (4 percent or less). However, students at both types of schools were equally likely to be taught social sciences and science by teachers who had not majored in those subjects (see supplemental table 58-2).

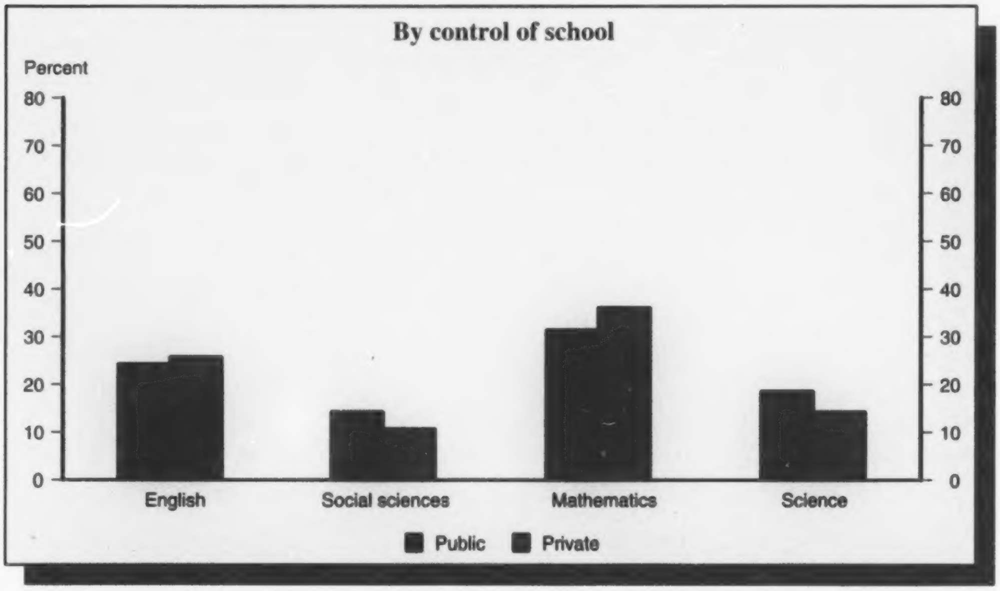
Percentage of secondary students in selected subjects taught by teachers without selected qualifications, by control of school and class subject: School year 1993–94

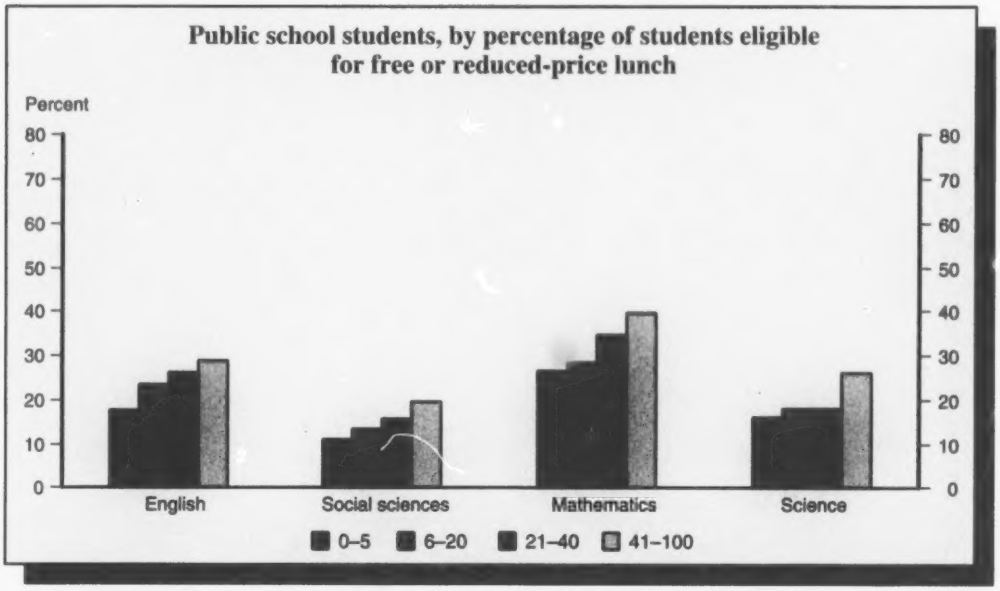
Control of school and class subject	Did not major in class subject	Did not major or minor in class subject	No graduate degree in class subject	Not certified in class subject
Public				
English	24.4	16.3	75.6	9.6
Social sciences	14.6	8.2	70.2	11.2
Mathematics	31.7	21.7	80.2	14.2
Science	18.9	9.7	71.6	8.9
Foreign languages	18.7	10.5	73.5	11.3
Visual and performing arts	13.7	12.4	68.0	12.4
Health and physical education	8.7	6.7	76.8	8.3
Vocational education	19.2	17.2	76.5	11.5
Private				
English	25.8	20.9	72.1	35.0
Social sciences	11.0	8.8	70.2	31.7
Mathematics	36.2	28.6	82.0	46.4
Science	14.6	8.2	69.8	29.9
Foreign languages	30.7	23.7	72.9	46.7
Visual and performing arts	17.0	13.8	61.7	38.7
Health and physical education	23.9	15.5	76.4	37.0
Vocational education	45.8	43.8	81.7	50.0

NOTE: See the supplemental note to this indicator for the definition of student percentages, certification in class subject, and major/minor in class subject.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public and Private School Teacher questionnaires).

Percentage of secondary students in selected subjects taught by teachers who did not major in the class subject: School year 1993–94





NOTE: See the supplemental note to this indicator for the definition of student percentages, certification in class subject, and major/minor in class subject.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public and Private School Teacher questionnaires).

Attrition among full-time public and private school teachers

Teacher attrition is the largest single factor determining the demand for additional teachers in the Nation's schools. Patterns of attrition vary considerably according to the age of teachers and the destination of those leaving. While the rate of teacher attrition is not as high today as it was in the 1960s and 1970s, it is still important to study attrition patterns and their implications for the Nation's future need for teachers as the current teacher work force ages.

- Six percent of full-time public school teachers and 10 percent of full-time private school teachers who taught during the 1993–94 school year left teaching before the 1994–95 school year. Attrition rates between the 1993–94 and 1994–95 school years for both full-time public and private school teachers were similar to the attrition rates between the 1987–88 and 1988–89 school years.
- For public school teachers who left teaching between the 1993–94 and 1994–95 school years, the destination of leavers reported most was retirement. In fact, during that period, 3 out of 10 public school teachers who left teaching did so to retire.
- For private school teachers who left teaching between the 1993–94 and 1994–95 school years, the destination of leavers reported most was to pursue a career outside of education. Between the 1993–94 and 1994–95 school years, 33 percent of private school teachers left teaching to pursue a career outside of education.
- Attrition was highest among older teachers (those age 60 and older). Among young teachers (those younger than 25), attrition was far higher in private than in public schools (see supplemental table 59-1).

Change in teaching status of full-time teachers between the 1987–88 and 1988–89, 1990–91 and 1991–92, and 1993–94 and 1994–95 school years, and destination of leavers, by control of school

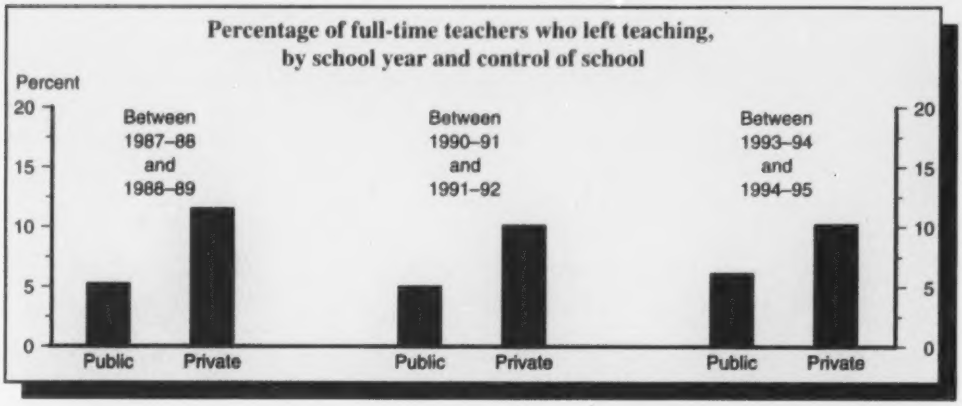
	Public			Private		
Teaching status and destination of leavers	Between 1987–88 and 1988–89	Between 1990–91 and 1991–92	Between 1993–94 and 1994–95	Between 1987–88 and 1988–89	Between 1990–91 and 1991–92	Between 1993–94 and 1994–95
Teaching status						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Left teaching	5.2	5.0	6.1	11.5	10.1	10.2
Moved to another school	7.6	6.7	6.7	10.1	6.8	6.0
Teaching at same school	87.2	88.3	87.2	78.4	83.1	83.8
Destination of leavers						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Working in education	15.6	14.1	14.0	10.3	6.8	9.7
Working outside education	17.0	13.4	21.0	37.6	34.8	33.4
Attending college	5.5	6.7	2.5	6.9	12.1	9.1
Homemaking/child rearing	27.4	18.7	17.3	28.8	19.7	20.3
Retired	27.3	34.9	30.8	5.2	8.3	8.9
Disabled	0.8	0.8	1.9	(*)	0.4	0.9
Other	6.6	11.3	12.4	10.7	18.0	17.7

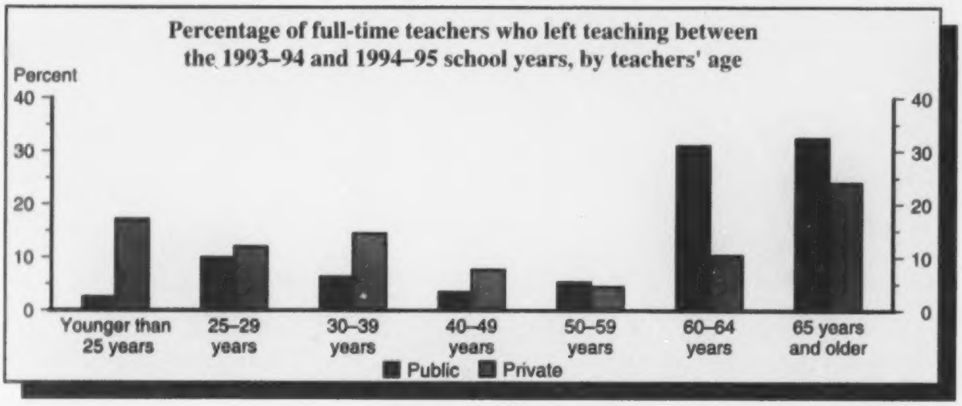
* Too few sample observations for a reliable estimate.

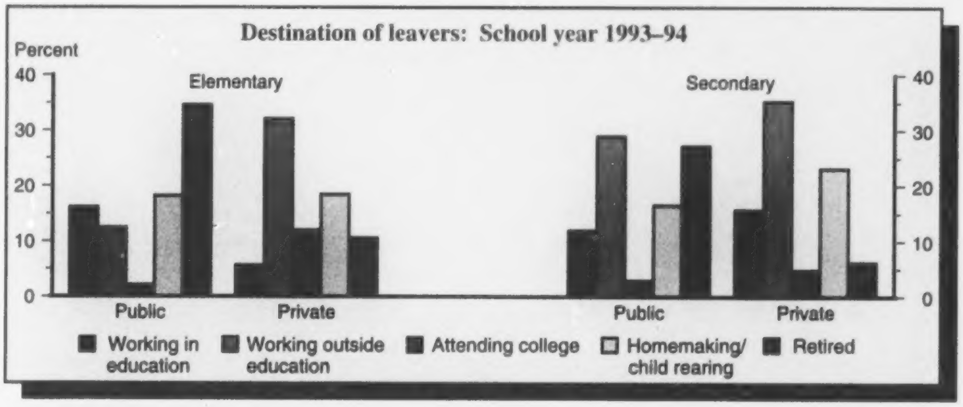
NOTE: Details may not add to totals due to rounding. See supplemental tables 59-2 and 59-3 for data on part-time teachers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94, and the Teacher Follow-up Survey, 1988–89, 1991–92, and 1994–95.

Full-time teachers who left teaching


Percentage of full-time teachers who left teaching, by school year and control of school


Percentage of full-time teachers who left teaching between the 1993–94 and 1994–95 school years, by teachers' age


Destination of leavers: School year 1993–94

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94, and the Teacher Follow-up Survey, 1988–89, 1991–92, and 1994–95.

Part-time instructional faculty and staff at postsecondary institutions

Part-time instructional faculty and staff provide postsecondary institutions with a flexible work force to respond to fluctuating student enrollments, to fill temporary vacancies, to teach specialized courses, and to reduce faculty costs. While many faculty work part time out of choice, these individuals face job uncertainty, often play no role in academic governance, and lack job benefits provided to full-time faculty. These issues, which are accentuated by an increasing use of part-time instructional faculty, may affect faculty morale and the quality of teaching available at postsecondary institutions.

- In fall 1992, 42 percent of postsecondary instructional faculty and staff worked part time, up from 33 percent in fall 1987 (see supplemental table 60-1).
- Instructors and lecturers were more likely to be employed part time than faculty with higher academic ranks in fall 1992.
- The percentage of instructional faculty and staff who worked part time increased at research, doctoral, comprehensive, and 2-year institutions between fall 1987 and fall 1992 (see supplemental table 60-1).
- In fall 1992, females were more likely than males to work part time at both public and private institutions.

Percentage of postsecondary instructional faculty and staff, by control and type of institution, sex, academic rank, and employment status: Fall 1992

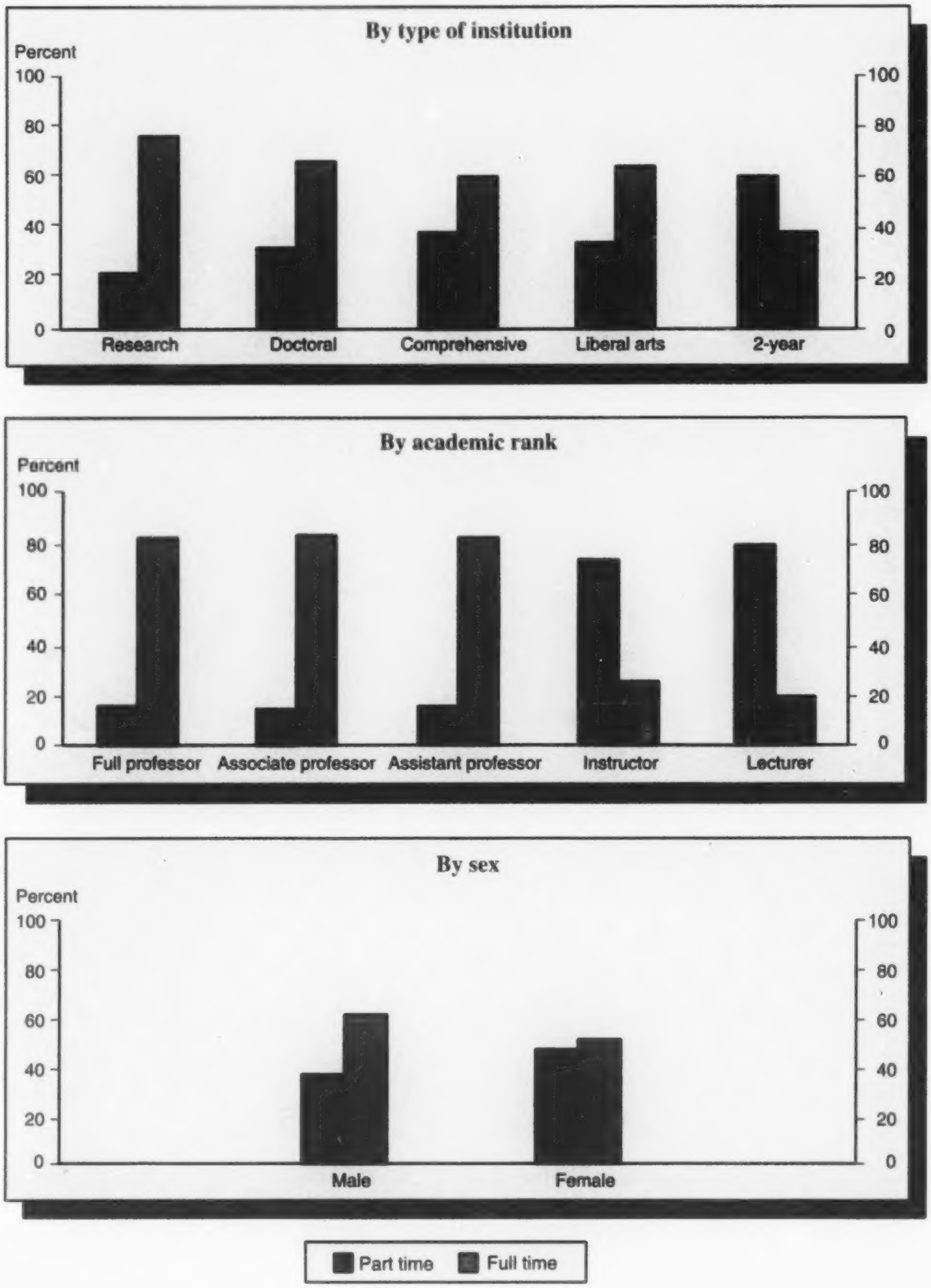
Sex and academic rank	Total	Control of institution: Public	Control of institution: Private	Type of institution: Research	Doctoral	Comprehensive	Liberal arts	2-year	Other
				Part time					
Total*	**41.6**	**41.4**	**42.2**	**23.4**	**32.6**	**38.6**	**35.7**	**60.2**	**37.8**
Sex									
Male	37.2	37.0	37.7	19.0	27.4	33.3	29.8	60.8	35.0
Female	48.9	48.5	49.9	34.1	43.2	46.7	43.3	59.4	45.0
Academic rank									
Full professor	16.7	11.7	27.1	10.3	13.9	16.9	17.8	25.1	29.1
Associate professor	15.4	13.3	19.6	16.6	11.0	9.5	9.4	22.2	28.9
Assistant professor	16.3	13.2	21.3	14.8	13.0	11.2	17.0	24.5	27.2
Instructor	74.5	73.3	78.9	65.9	73.8	78.2	75.8	74.7	66.2
Lecturer	79.3	78.1	81.3	59.6	81.6	85.6	80.4	95.1	82.2
				Full time					
Total*	**58.4**	**58.6**	**57.8**	**76.6**	**67.4**	**61.4**	**64.3**	**39.8**	**62.2**
Sex									
Male	62.8	63.0	62.4	81.0	72.6	66.7	70.2	39.2	65.0
Female	51.1	51.5	50.1	65.9	56.8	53.3	56.7	40.6	55.1
Academic rank									
Full professor	83.3	88.3	72.9	89.7	86.1	83.2	82.2	74.9	70.9
Associate professor	84.6	86.7	80.4	83.5	89.0	90.5	90.6	77.8	71.1
Assistant professor	83.7	86.8	78.7	85.2	87.0	88.8	83.0	75.5	72.8
Instructor	25.5	26.7	21.1	34.1	26.2	21.9	24.2	25.3	33.8
Lecturer	20.8	21.9	18.7	40.4	18.4	14.4	19.6	4.9	17.8

* Included in the total but not shown separately are other academic ranks and those with no academic rank.

NOTE: Details may not add to 100.0 due to rounding. See the supplemental note to this indicator for a description of types of institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Percentage of postsecondary instructional faculty and staff, by employment status: Fall 1992



NOTE: See the supplemental note to this indicator for a description of types of institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Supplemental Tables and Notes

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Listed below are all of the supplemental tables and notes prepared for The Condition of Education 1998. *Due to space limitations, all of the tables and notes listed are not included in the printed volume; only those shown in bold are included here. To receive the second volume* The Condition of Education 1998 Supplemental and Standard Error Tables, *which includes the complete set of tables (and any associated standard error tables), contact the National Education Data Resource Center (NEDRC) at (703) 845-3151 or to view the electronic version of* The Condition of Education 1998, *go to the NCES Internet site http://nces.ed.gov/pubs98/condition98/index.html*

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Table 1-1 Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs or kindergarten,[1] by selected student characteristics: 1996

	3-year-olds			4-year-olds			5-year-olds		
Selected student characteristics	Total	Center-based programs	Kinder-garten	Total	Center-based programs	Kinder-garten	Total	Center-based programs	Kinder-garten
Total	**36.7**	**35.8**	**0.9**	**57.7**	**54.4**	**3.2**	**90.2**	**18.7**	**71.6**
Sex									
Male	37.4	36.4	0.9	58.9	54.8	4.1	90.3	15.9	74.5
Female	36.1	35.2	0.9	56.5	54.1	2.4	90.1	21.4	68.7
Race/ethnicity									
White	39.6	39.1	0.5	58.8	56.5	2.3	88.8	20.7	68.1
Black	40.5	38.2	2.2	67.8	62.0	5.8	94.1	15.8	78.3
Hispanic	22.1	22.1	0.0	45.3	41.0	4.2	90.4	14.4	76.0
Household income									
$10,000 or less	26.0	24.9	1.1	52.7	48.5	4.2	92.7	12.6	80.1
10,001–20,000	28.0	26.6	1.4	45.3	40.5	4.8	87.6	24.1	63.5
20,001–35,000	30.8	29.5	1.3	50.6	49.4	1.2	87.8	16.0	71.8
35,001–50,000	42.2	42.1	0.1	58.2	54.6	3.7	89.7	18.4	71.4
50,001 or more	55.0	54.4	0.6	75.8	72.6	3.2	92.8	21.3	71.5
Parents' highest education level									
Less than high school diploma	[2]22.0	[2]18.4	3.5	[2]47.3	41.0	6.3	90.3	13.4	[2]76.9
High school diploma or GED	28.9	27.9	1.0	47.3	43.7	3.6	89.9	18.3	71.6
Some college/vocational/technical	34.5	34.0	0.5	59.8	57.3	2.5	88.6	19.5	69.1
Bachelor's degree	49.6	48.9	0.7	62.6	60.2	2.4	92.6	20.0	72.6
Graduate/professional school	60.4	60.4	0.0	78.1	75.5	2.6	92.1	19.9	72.2
Family structure									
Two biological or adoptive parents	38.0	37.1	0.9	57.8	54.9	2.9	89.0	18.9	70.1
One biological or adoptive parent	37.3	36.5	0.7	58.4	54.5	3.9	91.9	18.4	73.4
One biological/adoptive and one step parent	[2]14.7	[2]14.7	0.0	[2]45.8	[2]41.7	4.0	93.2	[2]16.4	[2]76.8
Other relatives	[2]23.1	[2]18.0	[2]5.0	[2]55.9	[2]51.1	4.8	96.5	[2]18.8	[2]77.6
Mother's first language									
English	39.0	38.4	0.6	59.7	57.1	2.7	89.8	19.6	70.1
Spanish	[2]19.6	[2]18.0	1.7	41.5	35.6	5.9	94.2	11.7	82.5
Other	[2]37.1	[2]31.7	5.4	[2]55.3	[2]49.3	6.0	[2]80.4	12.2	[2]68.2
Poverty status[3]									
Poor	24.4	22.7	1.7	50.2	45.5	4.7	89.6	16.1	73.5
Non-poor	41.0	40.4	0.7	60.1	57.4	2.7	90.4	19.3	71.0
Mother's employment status									
35 hours or more per week	44.2	42.3	1.9	59.5	55.3	4.2	90.2	18.0	72.2
Less than 35 hours per week	45.0	44.5	0.5	63.7	61.5	2.3	91.8	19.8	72.0
Looking for work	[2]32.4	[2]29.8	2.6	[2]58.2	[2]53.8	4.4	92.2	[2]20.5	[2]71.7
Not in labor force	26.9	26.9	0.1	52.8	50.7	2.1	87.6	18.2	69.4

[1] See the glossary for definitions of center-based programs and kindergarten.

[2] Interpret with caution; standard errors are large due to small sample size.

[3] The poverty measure presented in this analysis was developed by combining information about household composition and household income. See the supplemental note to this indicator for further discussion.

NOTE: Included in the total but not shown separately are children from other racial/ethnic groups and other types of family structures. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31, 1995.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education File).

Note to Indicator 1: Preprimary enrollment rates

Age of the child

For this analysis, the age of the child was calculated as of December 31, 1990 for 1991 data; as of December 31, 1992 for 1993 data; as of December 31, 1994 for 1995 data; and as of December 31, 1995 for 1996 data.

Enrollment rates

The numerator used to calculate the enrollment rates for this analysis is the number of 3-, 4-, and 5-year-olds who were enrolled in center-based programs or kindergarten as of December 31, 1990, 1992, 1994, and 1995. The denominator used is the total number of children who were ages 3, 4, and 5 as of December 31, 1990, 1992, 1994, and 1995. Children who were enrolled in first grade or higher, or who were in the "ungraded" category, were excluded from this analysis.

Race/ethnicity

A child's race/ethnicity is determined by the composite of the National Household Education Survey (NHES) variables "race" and "Hispanic." If the child's ethnicity was Hispanic, he or she was classified as Hispanic, regardless of whether his or her race was classified as white, black, or other. Children of "other" race/ethnicities were included in the totals but were not shown separately in this analysis.

Parents' highest education level

"Parents' highest education level" is defined as the highest education level of the child's parents or nonparent guardians who resided in the household. It is based on the highest education level of the mother or female guardian or the highest education level of the father or male guardian. If only one parent resided in the household, that parent's highest education level was used.

Poverty measure

The poverty measure used in this analysis was developed by combining information about household composition and household income. Household composition is the count of family members based on the relationship among the household members. The number of family members is the number of persons in the immediate family of the child (e.g., parents, siblings, and the child him/herself). If the child had no parents in the household, the total number of household members was used.

Household income was also used as part of the poverty measure. NHES collects data on household income in increments. Information on the actual household income, which was available for about 7 percent of the population, was also used. Because actual household income was not available in most cases, the measure is an approximation. Households were categorized as "poor" if they met one of the following conditions:

- 2 family members and the household income was $5,000 or less;
- 2 family members and the actual household income was less than $10,000;
- 3 family members and the household income was $10,000 or less;
- 3 family members and the actual household income was less than $12,000;
- 4 or 5 family members and the household income was $15,000 or less;
- 5 family members and the actual household income was less than $18,000;
- 6 or 7 family members and the household income was $20,000 or less;
- 7 family members and the actual household income was less than $23,000;
- 8 family members and the household income was $25,000 or less; or
- 9 or more family members and the household income was $30,000 or less.

This information was available in 1993, 1995, and 1996 only.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991, 1993, 1995, and 1996.

Table 3-1 Percentage of students who reported using a computer at school or at home, by grade level and family income: October 1984, 1989, and 1993

Current grade level and family income*	1984			1989			1993		
	Used a computer at school	Used a computer at home	Used a computer at home or school	Used a computer at school	Used a computer at home	Used a computer at home or school	Used a computer at school	Used a computer at home	Used a computer at home or school
					Grades 1–6				
Total	**31.3**	**12.1**	**37.2**	**54.1**	**16.6**	**58.8**	**69.7**	**24.1**	**74.0**
Low income	19.1	2.5	20.6	40.9	3.3	42.0	59.8	4.0	60.5
Middle income	30.2	10.0	35.4	54.0	13.5	58.1	69.1	18.8	72.6
High income	43.4	25.0	54.5	64.4	34.6	73.0	78.4	51.4	87.3
					Grades 7–12				
Total	**30.7**	**14.3**	**38.5**	**47.0**	**23.0**	**57.0**	**61.2**	**29.7**	**70.4**
Low income	21.8	3.6	24.3	42.3	6.6	44.9	53.3	6.1	54.8
Middle income	30.2	10.8	35.7	46.3	18.4	54.3	61.2	23.7	68.4
High income	35.8	26.1	50.4	50.9	41.3	68.9	65.5	55.3	83.0

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

NOTE: Data shown in this table are from the Current Population Survey (CPS). The CPS is household-reported data, while the NAEP Almanac data shown in other tables in this analysis are student-reported data. Therefore, data in this table are not comparable to data shown in the other tables of the analysis. See the supplemental note to this indicator for further explanation.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 3-2 Percentage of students who reported using a computer, by grade and location of use: 1984–96

Year	At home			At school[1]			At the library[2]		
	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	44.8	36.6	30.3	38.8	33.3	45.0	25.2	20.5	22.2
1988	45.5	46.2	39.7	70.2	58.2	55.3	27.6	39.8	37.4
1990	43.3	41.2	42.8	81.1	59.5	55.1	34.5	35.1	46.2
1992	43.0	44.0	50.7	83.5	62.4	72.8	45.6	47.3	62.1
1994	50.0	50.1	51.0	86.0	72.3	73.9	48.1	56.8	61.3
1996	62.6	61.2	63.3	88.6	76.7	84.0	61.4	66.7	72.9

[1] Based on the percentage of students who reported ever using a computer at school.

[2] School library or public library.

NOTE: Data in this table may seem inconsistent with data in table 3-1 of this analysis due to a difference in the respondents for the two sources. See the supplemental note to this indicator for further explanation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Writing, 1984 to 1996*, 1998.

Note to Indicator 3: Comparability of sources for student computer use

Two primary data sources were used for the analysis in *Indicator 3*. Each surveyed different populations for different reasons. The full citations for these data sources are as follows:

- U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Writing, 1984 to 1996, Mathematics, 1978 to 1996, Science, 1986 to 1996*, 1998.
- U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys, 1984, 1989, and 1993.

The National Assessment of Educational Progress (NAEP) Almanac data come from a survey administered to 4th-, 8th-, and 11th-graders every 2 years. The questions on computer use are background questions administered to the students along with an assessment of their skills in mathematics, science, reading, and writing. The background questionnaire asks, among other things, how much time students spend on computers and for what activities they use a computer.

The October Current Population Surveys (CPS) are administered to households each year. The computer component of these surveys is included every few years, and has questions concerning the access students in the household have to computers at school and at home. These data can be broken out by race/ethnicity and family income to provide descriptive information on who has access to computers and where computers are being used.

Because one survey is directed toward students and the other survey is directed toward heads of households, the data from the two surveys are not comparable. In fact, the difference in the respondents for these two surveys may account for the inconsistencies between data shown in supplemental tables 3-1 and 3-2, including the fact that household respondents reported students using computers at home less often than students themselves reported using computers at home.

Table 4-1 Percentage of schools and instructional rooms with Internet access, by control and level of school: Fall 1995

	Percentage of schools with Internet access		Percentage of instructional rooms with Internet access[1]	
Level of school[2]	Public	Private	Public	Private
Total	**50**	**25**	**8**	**5**
Elementary	46	23	8	3
Secondary	65	57	8	6
Combined	([2])	19	([2])	8

[1] Based on the total number of instructional rooms in regular public and private schools.

[2] Data for combined public schools are not reported as a separate level of school because there are too few sample observations for reliable estimates. Data for combined public schools are included in the public school total.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997, and *Advanced Telecommunications in U.S. Private Schools, K–12, Fall 1995*, 1997.

Table 4-2 Percentage of public schools with Internet access and members of the school community with access to Internet capabilities, by type of Internet capability: Fall 1996

		Member of the school community with access to Internet capability[2]		
Internet capabilities	Available[1]	Teachers	Administrative staff	Students
E-mail	90	88	92	35
News groups	57	91	85	43
Resource location services (e.g., Gopher, Archie, Veronica, etc.)	67	93	87	64
World Wide Web access (e.g., browsers such as Netscape, MOSAIC)	89	94	86	74

[1] Based on the number of schools with Internet access (65 percent of public schools).

[2] Based on the number of schools with the corresponding Internet capability.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997.

Table 4-3 Percentage of private schools with Internet access and members of the school community with access to Internet capabilities, by type of Internet capability: Fall 1995

		Member of the school community with access to Internet capability[2]		
Internet capabilities	Available[1]	Teachers	Administrative staff	Students
E-mail	94	74	91	39
News groups	69	79	78	55
Resource location services (e.g., Gopher, Archie, Veronica, etc.)	67	85	79	68
World Wide Web access (e.g., browsers such as Netscape, MOSAIC)	72	87	79	70

[1] Based on the number of schools with Internet access (25 percent of private schools).

[2] Based on the number of schools with the corresponding Internet capability.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Private Schools, K–12, Fall 1995*, 1997.

Table 5-1 Percentage of students ages 6–20 who were enrolled in grades 1–12 and who participated in various summer activities, by selected student characteristics: Summer 1996

Selected student characteristics	Attended summer school	Participated in other organized summer activities	Worked for pay[1]	Participated in unpaid internship[1]	Participated in community service[1]
Total[2]	**9.2**	**37.7**	**26.3**	**2.0**	**9.4**
Sex					
Male	10.2	39.1	27.2	1.9	7.7
Female	8.2	36.1	25.2	2.1	11.3
Grade level					
1–7	7.5	41.9	—	—	—
8–10	9.9	35.5	13.2	1.8	9.0
11–12	14.9	27.7	47.5	2.3	10.4
Race/ethnicity					
White	7.3	45.0	30.8	2.2	10.9
Black	11.0	24.8	17.4	1.5	6.5
Hispanic	14.0	19.2	16.0	1.5	5.9
Metropolitan statistical area (MSA)[3]					
Central cities, in MSA	10.7	30.9	19.1	2.2	8.2
Non central cities, in MSA	9.9	41.9	26.4	2.1	10.4
Nonmetropolitan area	6.9	34.6	31.6	1.5	6.9
Family income[4]					
Low	9.4	18.3	17.7	1.1	5.6
Middle	8.9	35.2	25.8	2.0	8.4
High	9.9	55.1	31.6	2.4	13.4
Parents' highest education level[5]					
Less than high school diploma	10.5	12.1	14.3	1.1	3.4
High school diploma or GED	7.8	28.1	25.6	1.8	5.8
Some college	9.5	40.5	29.5	2.0	10.2
Bachelor's degree or higher	9.9	57.2	28.6	2.6	15.0

— Not applicable.

[1] For students enrolled in grades 8–12.

[2] Included in the total but not shown separately are students ages 6–20 whose grade levels were unknown, students from other racial/ethnic groups, students whose MSA was not identified, and students whose parents' highest education level was not available.

[3] See the glossary for information on MSA.

[4] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

[5] A parent's highest education level was determined by merging information from the parent's records with information from their child's records. When no parent resided with the student, information from the child's guardian was used.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Table 5-2 Percentage of students ages 6–20 who were enrolled in grades 1–12 and who attended summer school, and percentage of students who participated in other organized summer activities, by selected summer school and summer activity characteristics: Summer 1996

Selected summer school and summer activity characteristics	Grades 1–7	Grades 8–10	Grades 11–12
Attended summer school	**7.5**	**9.9**	**14.9**
Reasons for attending summer school[1]			
Retake a subject	19.4	40.1	43.9
Other reasons[2]			
Improve basic skills	66.3	37.8	25.3
Learn English as second language	6.7	2.8	3.3
Take subject not offered during the regular school year	36.3	14.6	12.7
Take regular high school courses	—	30.2	35.0
Take courses for college credit	—	3.4	14.4
Take subjects for some other reason	—	29.5	23.3
Number of weeks student attended summer school[3]			
1–4	44.4	38.6	27.6
5–8	48.4	54.8	61.9
9–12	6.5	5.9	8.9
Participated in other organized summer activities	**41.9**	**35.5**	**27.7**
Primary focus of organized summer activities[4]			
Arts and crafts	30.6	19.3	17.6
Sports	72.8	69.6	66.4
Computer, math, or science related activities	11.3	7.0	3.4
Language arts, history, or foreign languages	6.3	3.3	5.6
Religious studies	21.8	21.2	18.8
Other activities	19.1	16.7	15.2
Number of activities in which student participated[3]			
1	52.4	55.8	63.7
2–4	41.9	39.1	34.1
5 or more	5.3	4.0	1.2
Student participated in summer activity during the hours he/she would normally be in school during the regular school year	75.0	74.5	71.6

— Not applicable.

[1] Based on students who attended summer school. Percentages may not add to 100 because students may have attended more than one class, and therefore may have had more than one reason for attending summer school.

[2] The individual question items under "other reasons" were asked only of students who attended summer school for reasons other than "retaking a subject."

[3] Percentages may not add to 100.0 due to item non-response for this question.

[4] Based on students who participated in organized summer activities other than summer school. Percentages may not add to totals because students may have participated in more than one activity.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Table 6-1 Event dropout rates[1] for those in grades 10–12, ages 15–24, by parents' highest education level:[2] October 1990–96

Parents highest education level	1990	1991	1992	1993	1994	1995	1996
Total	**4.0**	**4.0**	**4.4**	**4.5**	**5.3**	**5.7**	**5.0**
Less than high school completer	9.6	7.4	11.2	9.9	10.9	11.9	10.2
High school completer	3.4	4.3	4.6	4.7	6.7	7.5	4.8
Some college	2.3	2.7	2.2	3.3	2.7	3.8	3.9
Bachelor's degree or higher	0.8	1.1	0.6	1.2	1.1	1.1	1.4
Not available[3]	24.9	22.3	18.9	17.3	24.7	22.7	27.8

[1] The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not graduated the following October.

[2] Parents' highest education level is defined as either 1) the highest educational attainment of the two parents who reside with the student, or if only one parent is in the residence, the highest educational attainment of that parent; or 2) when neither parent resides with the student, the highest educational attainment of the head of the household and his or her spouse.

[3] Parents' highest education level is not available for 1) those who do not live with their parents and who are classified as the head of the household (not including those who live in college dormitories); and 2) those whose parents' education level was not reported. In 1996, 23 percent of event dropouts ages 15–24 were in this category.

NOTE: Some data were revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Note to Indicator 6: Recent school dropouts

In this analysis, recent school dropouts are measured using the event dropout rate. The event dropout rate is the percentage of students ages 15–24 enrolled in grades 10–12 in October of a given year who are not enrolled and have not completed high school 1 year later.

Calculating the event dropout rate requires estimating 1) the number of students who left high school before completing (recent dropouts), and 2) the number of students who were enrolled in grades 10, 11, and 12 the previous October. The event dropout rate for 1996 is calculated by using data from the October Current Population Survey (CPS). The numerator is estimated as the number of persons ages 15–24 who were enrolled in grades 10–12 in October 1995, who were not enrolled in grades 10–12 in October 1996, and who had not completed 12 years of school. The denominator is estimated as the event dropouts and those ages 15–24 who attended grades 10, 11, and 12 in October 1995 and who were still enrolled, or who had completed 12 (or more) years of school and who indicated that they had completed high school between October 1995 and 1996. Those enrolled in special schools in October were counted as "not enrolled in regular school" and may have been classified as recent dropouts if they were enrolled in a regular school the previous October.

Change in CPS questions used to report educational attainment

From 1972 to 1991, the CPS defined educational attainment as "years of school completed." Individuals who completed 12 years of school were regarded as high school graduates and those who completed 16 years of school were considered college graduates. The number of years of school completed was based on responses to two questions: 1) "What is the highest grade...ever attended?" and 2) "Did...complete it?" For example, an individual who responded that the highest grade he or she ever attended was the first year of college and that he or she did not complete it was regarded as having completed 12 years of school. Beginning in 1992, these two questions were combined into a single question: "What is the highest level of school...has completed or the highest degree...has received?" Previously, the earlier high school levels were listed as single summary categories such as "9th grade, 10th grade, or 11th grade." Several new categories were added, including "12th grade, no diploma"; "H.S. completer—diploma or equivalent"; and "Some college—no degree." Also, college degrees were listed by type, allowing for a more accurate description of educational attainment. See the supplemental note to *Indicator 22* for further discussion on the effects of this change in measuring educational attainment.

Procedural changes

In 1994, the Bureau of the Census introduced several changes to the procedures used in the CPS. These changes may affect the comparability of current statistics to those derived from earlier surveys. In 1994, the sample weights were calculated using information from both the 1980 and the 1990 Decennial Censuses. In earlier surveys, 1990 population figures were based on the 1980 Decennial Census and information collected during the 1980s on births, deaths, and migration. If, for some groups, the latter produces different population estimates than the former, the sample weights would change, along with the statistics used to calculate them.

Also, the Bureau began using Computer-Aided Personal (and Telephone) Interviews (CAPI and CATI) to administer the survey in 1994. For earlier surveys, interviewers were given printed questionnaires to use. It is well known that the method in which a survey is administered can have effects on its responses. Although substantial testing was performed to minimize or predict these effects, all questions were not tested. Therefore, some statistics, such as dropout rates, may be affected by the change in survey procedures.

Table 7-1 Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by type of institution, family income, and race/ethnicity: October 1972–96

				Family income[1]				Race/ethnicity[2]				
		Type of institution		Low		Middle	High	White	Black		Hispanic	
October	Total	2-year	4-year	Annual	3-year average	Annual	Annual	Annual	Annual	3-year average	Annual	3-year average
1972	49.2	—	—	26.1	(3)	45.2	63.8	49.7	44.6	(3)	45.0	(3)
1973	46.6	14.9	31.7	20.3	(3)	40.9	64.4	47.8	32.5	41.4	54.1	48.7
1974	47.6	15.2	32.4	—	—	—	—	47.2	47.2	40.5	46.9	53.0
1975	50.7	18.2	32.6	31.2	(3)	46.2	64.5	51.1	41.7	44.4	58.0	52.5
1976	48.8	15.6	33.3	39.1	32.7	40.5	63.0	48.8	44.4	45.2	52.7	53.8
1977	50.6	17.5	33.1	27.7	32.8	44.2	66.3	50.8	49.5	46.8	50.8	48.5
1978	50.1	17.0	33.1	31.4	29.9	44.3	64.0	50.5	46.4	47.5	42.0	45.9
1979	49.3	17.5	31.8	30.5	31.5	43.2	63.2	49.9	46.7	45.3	45.0	46.4
1980	49.3	19.4	29.9	32.5	32.2	42.5	65.2	49.8	42.7	44.0	52.3	49.8
1981	53.9	20.5	33.5	33.6	33.0	49.2	67.6	54.9	42.7	40.4	52.1	49.2
1982	50.6	19.1	31.5	32.8	33.7	41.7	70.9	52.7	35.8	38.9	43.2	49.8
1983	52.7	19.2	33.5	34.6	34.0	45.2	70.3	55.0	38.2	37.9	54.2	47.3
1984	55.2	19.4	35.8	34.5	36.4	48.4	74.0	59.0	39.8	40.0	44.3	49.9
1985	57.7	19.6	38.1	40.2	36.2	50.6	74.6	60.1	42.2	39.6	51.0	46.5
1986	53.8	19.3	34.5	33.9	37.0	48.5	71.0	56.8	36.9	43.8	44.0	42.9
1987	56.8	18.9	37.9	36.9	37.8	50.0	73.8	58.6	52.2	44.5	33.5	44.9
1988	58.9	21.9	37.1	42.5	42.5	54.7	72.8	61.1	44.4	50.0	57.1	48.6
1989	59.6	20.7	38.9	48.1	45.8	55.4	70.7	60.7	53.4	48.2	55.1	51.6
1990	60.1	20.1	40.0	46.7	44.7	54.4	76.6	63.0	46.8	48.9	42.7	51.7
1991	62.5	24.9	37.7	39.5	42.3	58.4	78.2	65.4	46.4	47.2	57.2	51.6
1992	61.9	23.0	38.9	40.9	43.6	57.0	79.0	64.3	48.2	50.1	55.0	58.1
1993	61.5	22.4	39.1	50.4	44.1	56.9	79.3	62.9	55.6	51.5	62.2	55.4
1994	61.9	21.0	40.9	41.0	41.9	57.8	78.4	64.5	50.8	52.5	49.1	55.0
1995	61.9	21.5	40.4	34.2	41.3	56.1	83.4	64.3	51.2	52.6	53.7	51.2
1996	65.0	23.1	41.9	48.6	(3)	62.7	78.0	67.4	56.0	(3)	50.8	(3)

— Not available. Data for type of institution were not collected until 1973, and data on family income were not available in 1974.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between. See the supplemental note to this indicator for further discussion.

[2] Included in the total but not shown separately are high school completers from other racial/ethnic groups.

[3] Due to small sample sizes for the low income, black, and Hispanic categories, 3-year averages also were calculated for each category. For example, the 3-year average for blacks in 1973 is the average percentage of black high school completers ages 16–24 who were enrolled in college the October after completing high school in 1972, 1973, and 1974. Thus, 3-year averages cannot be calculated for 1972 and 1996, and for groups of 3 years in which some data are not available (e.g., 1973–75 for the low income category).

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 7-2 **Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by parents' highest education level: October 1990–96**

Parents' highest education level[1]	1990	1991	1992	1993	1994	1995	1996
Total	**60.1**	**62.5**	**61.9**	**61.5**	**61.9**	**61.9**	**65.0**
Less than high school completer	33.9	42.6	33.1	47.1	43.0	27.3	45.0
High school completer	49.0	51.0	55.5	52.3	49.9	47.0	56.1
Some college	65.6	67.5	67.5	62.7	65.0	70.2	66.6
Bachelor's degree or higher	83.1	87.2	81.3	87.9	82.5	87.7	85.2
Not available[2]	47.7	42.1	38.0	42.0	43.1	30.8	45.6

[1] Parents' highest education level is defined as either 1) the highest educational attainment of the two parents who reside with the student or, if only one parent is in the residence, the highest educational attainment of that parent; or 2) when neither parent resides with the student, the highest educational attainment of the head of the household and his or her spouse.

[2] Parents' highest education level is not available for 1) those who do not live with their parents and who are classified as the head of the household (not including those who live in college dormitories); and 2) those whose parents' educational attainment was not reported. In 1996, approximately 11 percent of high school graduates ages 16–24 were in this category.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Note to Indicator 7: Family income

The Current Population Survey (CPS) includes a family income variable that is used in many indicators in this publication as a measure of a student's economic standing. The three family income categories used in this publication are low, middle, and high income. Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between. The table that follows shows the real dollar amounts (rounded to the nearest $100) of the breakpoints between low and middle income and between middle and high income. For example, in 1996, low income was defined as the range between $0–12,200; middle income was defined as the range between $12,201–58,100; and high income was defined as $58,100 and over. Therefore, the breakpoints between low and middle income and between middle and high income are $12,200 and $58,100, respectively.

Dollar value (in current dollars) at the breakpoints between low and middle income and between middle and high income categories of family income: October 1970–96

	Breakpoints between:	
October	Low and middle income	Middle and high income
1970	$3,300	$11,900
1971	—	—
1972	3,500	13,600
1973	3,900	14,800
1974	—	—
1975	4,300	17,000
1976	4,600	18,300
1977	4,900	20,000
1978	5,300	21,600
1979	5,800	23,700
1980	6,000	25,300
1981	6,500	27,100
1982	7,100	31,300
1983	7,300	32,400
1984	7,400	34,200
1985	7,800	36,400
1986	8,400	38,200
1987	8,800	39,700
1988	9,300	42,100
1989	9,500	44,000
1990	9,600	46,300
1991	10,500	48,400
1992	10,700	49,700
1993	10,800	50,700
1994	11,800	55,300
1995	11,700	56,200
1996	12,200	58,100

— Not available.

NOTE: Amounts are rounded to nearest $100.

Table 8-1 Percentage distribution of 1992 high school graduates qualified for admission at a 4-year institution, by race/ethnicity and family income: 1992–94

Race/ethnicity and family income	Marginally or unqualified	College-qualified*				
		Total	Minimally	Moderately	Highly	Very highly
Total	**35.5**	**64.5**	**16.6**	**15.9**	**18.2**	**13.8**
Race/ethnicity						
White	31.9	68.2	16.1	16.6	20.3	15.2
Black	53.1	46.9	16.7	14.0	9.9	6.3
Hispanic	47.0	53.0	20.7	13.6	10.8	7.9
Asian/Pacific Islander	27.3	72.7	14.6	15.0	20.2	23.0
American Indian/Alaskan Native	55.2	44.8	22.2	15.8	5.9	1.0
Family income						
Low (less than $25,000)	47.5	52.5	18.7	12.8	13.6	7.3
Middle ($25,000–74,999)	32.4	67.6	16.1	17.0	19.9	14.6
High ($75,000 or more)	14.1	85.9	11.5	18.4	27.0	29.0

* Four-year college qualification index based on high school GPA, senior class rank, NELS 1992 aptitude test, SAT and ACT scores, and curricular rigor. See the supplemental note to this indicator for a more detailed description.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88), Third Follow-up (1994).

Table 8-2 Percentage of college-qualified[1] 1992 high school graduates taking steps toward admission at a 4-year institution[2] who were accepted, and percentage distribution according to postsecondary attendance, by race/ethnicity and family income: 1992–94

Race/ethnicity and family income	Percentage accepted at a 4-year institution	Postsecondary attendance by 1994[3]			
		Any 4-year institution	Public 2-year college	Other less-than-4-year	Did not attend
Total	**93.3**	**83.7**	**11.1**	**1.3**	**4.0**
Race/ethnicity					
White	93.9	84.4	11.2	1.2	3.2
Black	90.3	81.5	8.5	2.6	7.4
Hispanic	90.9	77.2	13.0	1.0	8.9
Asian/Pacific Islander	93.6	84.4	11.1	0.3	4.2
American Indian/Alaskan Native	78.5	([4])	([4])	([4])	([4])
Family income					
Low (less than $25,000)	93.5	82.5	11.2	1.7	4.6
Middle ($25,000–74,999)	92.7	82.1	12.5	1.4	4.1
High ($75,000 or more)	97.5	91.5	5.6	0.7	2.1

[1] Four-year college qualification index based on high school GPA, senior class rank, NELS 1992 aptitude test, SAT and ACT scores, and curricular rigor. See the supplemental note to this indicator for a more detailed description.

[2] Took a college entrance examination (SAT or ACT) and applied for admission to a 4-year institution.

[3] First institution attended, if any. Includes students not accepted at a 4-year institution.

[4] Too few sample observations for a reliable estimate.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88), Third Follow-up (1994).

Note to Indicator 8: Access to higher education

The college qualification index was developed for a recent NCES publication, *Access to Postsecondary Education for the 1992 High School Graduates* (NCES 98-105). The index measures a student's readiness to attend a 4-year college or university and uses up to five sources of information about a student's preparation: high school grade point average (GPA) in academic courses, senior class rank, scores on the NELS 1992 cognitive test battery, and ACT and SAT college entrance examination scores. Because admission standards and requirements vary widely among 4-year colleges and universities, the approach used was to examine the actual distribution of these five measures of academic aptitude and achievement among those graduating seniors who did attend a 4-year institution. Approximately half (45 percent) of the NELS graduating seniors had data available for four or five of the criteria: class rank, GPA, the NELS test, and ACT and SAT scores. For about one-third of the students, only three data sources were available because they lacked ACT or SAT scores. All of these students had NELS test scores, however. In order to identify as many students as possible who were potentially academically qualified to attend a 4-year institution, students were assigned the highest level of qualification yielded by any of the five criteria available.

Students were classified in a two-stage process. The initial classification was determined as follows:

- Very highly qualified: those whose highest value on any of the five criteria would put them among the top 10 percent of 4-year college students (specifically the NELS 1992 graduating seniors who enrolled in 4-year colleges and universities) for that criterion. Minimum values were GPA=3.7, class rank percentile=96, NELS test percentile=97, combined SAT=1250, composite ACT=28.
- Highly qualified: those whose highest value on any of the five criteria would put them among the top 25 percent of 4-year college students (but not the top 10 percent) for that criterion. Minimum values were GPA=3.6, class rank percentile=89, NELS test percentile=90, combined SAT=1110, composite ACT=25.
- Moderately qualified: those whose highest value on any of the five criteria would put them among the top 50 percent (but not the top 25 percent, i.e., in the second quartile) of 4-year college students for that criterion. Minimum values were GPA=3.2, class rank percentile=75, NELS test percentile=76, combined SAT=960, composite ACT=22.
- Minimally qualified: those whose highest value on any of the five criteria would put them among the top 75 percent (but not the top 50 percent, i.e., in the third quartile) of 4-year college students for that criterion. Minimum values were GPA=2.7, class rank percentile=54, NELS test percentile=56, combined SAT=820, composite ACT=19.
- Marginally or not qualified: those who had no value on any criterion that would put them among the top 75 percent of 4-year college students (i.e., all values were in the lowest quartile). In addition, those in vocational programs (according to their high school transcript) were classified as not college qualified.*

Next, some adjustments were made for programs of rigorous academic coursework, defined as including at least 4 years of English; 3 years each of science, mathematics, and social studies; and 2 years of a foreign language. Those who had taken a program of rigorous academic courses were moved up into the next highest level of qualification, and those in the "very highly qualified" category who had not taken the rigorous academic coursework were moved down into the "highly qualified" category.

Students were identified as "college qualified" if they were at least minimally qualified according to this index. However, it is important to recognize that by definition, the "marginally or not qualified" category includes students who enrolled at a 4-year institution. Admission standards vary widely and admission may be based on factors other than academic preparation (for example, some public 4-year institutions are open to any in-state high school graduate).

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* This procedure affected the classification of less than 1 percent of students, because very few students in vocational programs met any of the criteria for a higher classification.

Table 9-1 Percentage of high school completers enrolled in college, by age, race/ethnicity, and type of institution: October 1973–96

October	Ages 18–24				Ages 25–34				Age 35 or older			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
					2-year institutions							
1973	6.3	6.3	4.6	9.8	2.1	2.0	2.3	3.6	—	—	—	—
1974	7.0	6.4	7.2	14.6	2.4	2.2	3.6	3.3	—	—	—	—
1975	8.1	7.7	9.3	13.6	3.0	2.7	5.2	5.5	—	—	—	—
1976	7.8	7.3	8.6	14.4	3.1	2.7	4.8	6.5	0.9	0.9	1.4	2.1
1977	8.0	7.5	9.8	13.9	3.1	2.8	5.5	4.6	—	—	—	—
1978	8.0	7.6	7.9	11.9	2.7	2.5	4.1	4.6	1.0	0.9	1.7	1.9
1979	7.6	7.1	8.4	13.3	2.6	2.4	3.2	4.4	1.0	0.9	1.1	1.6
1980	8.5	8.1	9.0	11.9	2.8	2.6	3.4	3.8	0.8	0.8	1.4	1.1
1981	9.0	8.6	7.9	14.3	2.7	2.5	3.2	4.2	0.9	0.8	1.5	2.6
1982	9.3	9.0	7.4	14.6	2.8	2.6	3.5	4.0	0.9	0.8	1.0	1.4
1983	8.9	8.8	7.4	12.1	2.8	2.6	3.5	5.3	0.9	0.9	0.7	1.2
1984	8.6	8.2	9.2	10.8	2.7	2.6	2.8	3.5	0.8	0.7	1.0	0.8
1985	8.6	8.3	8.4	10.5	2.8	2.7	2.7	4.1	0.9	0.8	1.1	1.1
1986	9.0	9.0	6.9	12.3	2.7	2.6	2.5	4.1	0.9	0.9	1.3	0.9
1987	9.8	9.5	8.7	12.0	2.5	2.3	2.6	3.8	0.9	0.8	1.0	1.0
1988	10.6	10.6	7.8	13.4	2.5	2.3	3.5	3.3	0.9	0.9	1.4	1.5
1989	9.9	9.5	9.1	13.2	2.5	2.4	2.4	3.3	0.9	0.9	0.9	2.0
1990	10.5	10.2	10.6	13.2	2.8	2.7	2.7	3.5	1.0	0.9	1.1	1.9
1991	11.8	11.3	11.3	14.9	3.2	3.0	3.6	3.8	1.0	1.0	1.3	1.3
1992	12.0	11.2	10.7	17.6	2.9	2.8	2.3	3.8	0.9	0.9	0.9	1.4
1993	11.7	11.5	9.4	16.2	2.7	2.4	3.4	4.2	1.0	0.9	1.4	1.5
1994	11.1	10.8	10.5	13.1	3.1	2.7	3.9	4.4	1.0	0.9	1.2	2.0
1995	10.9	10.2	11.2	13.5	2.7	2.5	3.6	3.0	0.9	0.8	1.1	1.7
1996	11.4	11.0	9.6	13.6	2.9	2.7	4.1	2.6	1.0	0.9	1.2	1.6
					4-year institutions							
1973	15.6	15.9	12.5	13.3	1.9	1.8	2.4	2.5	—	—	—	—
1974	15.6	15.9	13.6	11.8	1.8	1.6	3.2	1.8	—	—	—	—
1975	15.7	15.8	15.1	15.9	2.0	1.9	2.6	2.5	—	—	—	—
1976	24.4	24.6	23.9	19.4	6.3	6.2	6.8	3.8	1.3	1.2	2.7	1.8
1977	23.1	23.4	19.9	16.8	6.6	6.4	7.6	7.2	—	—	—	—
1978	22.6	22.9	20.8	14.5	6.1	6.0	6.0	5.4	1.4	1.3	2.0	2.4
1979	22.8	23.5	19.6	15.7	6.2	6.2	5.3	6.6	1.4	1.4	2.1	1.2
1980	22.2	23.0	17.0	16.9	5.6	5.7	5.5	4.6	1.2	1.1	1.7	1.7
1981	22.4	23.1	18.8	15.0	5.8	5.6	6.2	5.7	1.4	1.3	2.2	1.3
1982	22.7	23.4	19.5	13.6	5.8	5.8	5.6	4.5	1.3	1.2	1.7	1.5
1983	22.6	23.4	18.4	17.9	5.9	5.8	4.9	4.4	1.4	1.3	1.9	1.9
1984	23.4	24.5	16.9	17.4	5.6	5.5	4.7	6.2	1.2	1.2	1.6	0.9
1985	23.8	25.3	16.4	14.8	5.6	5.7	4.1	5.3	1.4	1.3	1.8	2.1
1986	24.2	24.7	20.7	16.3	5.3	5.1	5.0	6.0	1.4	1.3	1.9	2.3
1987	26.2	27.7	20.3	16.1	5.6	5.5	5.3	5.0	1.5	1.4	1.6	1.5
1988	26.4	27.8	20.0	17.4	5.4	5.5	3.9	4.5	1.8	1.7	1.9	1.9
1989	28.1	30.1	21.4	15.1	5.8	5.9	3.8	3.8	1.6	1.6	1.2	1.7
1990	28.4	30.2	21.8	15.1	5.8	6.1	3.3	3.5	1.7	1.7	1.8	2.0
1991	29.1	30.9	19.5	19.1	5.8	5.7	4.5	4.8	1.7	1.7	2.1	1.6
1992	29.6	31.3	22.7	18.5	5.7	5.6	4.4	4.7	1.6	1.6	1.7	1.3
1993	29.3	30.6	22.8	18.7	5.8	5.8	4.7	5.2	1.6	1.5	2.0	1.6
1994	31.1	32.8	25.1	19.8	6.5	6.4	5.8	5.7	1.7	1.6	2.3	2.3
1995	31.2	33.5	24.0	21.4	6.7	6.8	5.5	5.0	1.7	1.6	2.5	2.1
1996	31.8	34.0	26.1	20.2	6.8	6.4	6.8	7.1	1.7	1.6	2.4	1.8

— Not available.

NOTE: Included in the total but not shown separately are high school completers from other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 11-1 **Among 1989–90 beginning students at community colleges, percentage distribution according to transfer status, by selected characteristics**

Selected characteristics	Did not transfer	First transfer, by destination[1]				
		Total	Public 4-year	Private 4-year	Public less-than-4-year	Private less-than-4-year
Total	**57.8**	**42.2**	**19.2**	**3.2**	**14.2**	**5.6**
Sex						
Male	57.4	42.6	20.3	2.8	12.7	6.8
Female	58.2	41.8	18.1	3.6	15.6	4.5
Race/ethnicity						
White	59.2	40.8	19.4	3.5	13.0	4.9
Black	60.9	39.1	11.4	3.4	19.4	5.0
Hispanic	48.6	51.4	20.1	2.4	17.2	11.7
Asian/Pacific Islander	(2)	(2)	(2)	(2)	(2)	(2)
American Indian/Alaskan Native	(2)	(2)	(2)	(2)	(2)	(2)
Parents' educational attainment						
Less than high school graduate	68.0	32.0	5.7	0.2	14.9	11.1
High school graduate	64.1	35.9	17.8	3.4	10.5	4.3
Some postsecondary	55.1	44.9	20.7	3.3	14.7	6.3
Bachelor's degree	48.0	52.0	26.3	1.5	17.3	6.9
Advanced degree	26.7	73.3	39.1	10.8	22.5	1.1
Socioeconomic status						
Lowest quartile	75.6	24.4	5.8	1.4	13.4	3.9
Middle two quartiles	60.4	39.6	17.6	3.1	12.6	6.3
Highest quartile	42.5	57.5	30.1	4.6	17.2	5.6
Family income[3]						
Less than $20,000	55.5	44.5	18.5	3.1	15.4	7.5
20,000–39,999	48.1	51.9	28.8	3.7	12.3	7.1
40,000–59,999	48.3	51.7	27.3	4.5	14.9	4.9
60,000 or more	41.1	58.9	29.7	6.8	20.8	1.6
Age as of 12/31/89						
18 years or younger	42.3	57.7	29.6	5.3	17.3	5.5
19 years	60.1	39.9	20.4	1.9	14.9	2.8
20–29 years	72.3	27.7	9.0	1.8	9.4	7.7
30 years or older	78.8	21.2	2.5	1.0	11.7	6.1
Expected educational attainment						
Less than 2 years of postsecondary education	88.6	11.4	3.9	0.0	7.3	0.3
2 to 3 years of postsecondary education	76.2	23.8	3.2	0.0	12.2	8.4
Bachelor's degree or higher	47.0	53.1	27.1	4.8	15.9	5.4
High school credential						
High school diploma	56.5	43.5	20.4	3.5	13.8	5.8
Equivalency certificate	73.9	26.1	2.7	0.0	19.1	4.3
None	(2)	(2)	(2)	(2)	(2)	(2)
Diploma/delayed entry status						
Diploma, did not delay	46.0	54.0	28.5	4.5	15.4	5.5
Diploma, delayed entry	72.6	27.4	7.9	1.9	11.3	6.2
No diploma	73.5	26.5	4.5	0.0	18.0	4.1

Table 11-1 Among 1989–90 beginning students at community colleges, percentage distribution according to transfer status, by selected characteristics—Continued

Selected characteristics	Did not transfer	First transfer, by destination[1] Total	Public 4-year	Private 4-year	Public less-than-4-year	Private less-than-4-year
Self-rating of academic ability						
Above average	50.4	49.7	26.9	5.6	11.7	5.5
Average or below	60.5	39.5	16.7	2.6	14.8	5.4
Marital status in 1989–90						
Never married	51.3	48.8	23.7	4.0	14.6	6.4
Married	82.8	17.3	5.4	0.1	9.0	2.7
Divorced/separated/widowed	71.9	28.1	5.3	2.2	12.7	7.9
Number of children in 1989–90						
None	52.8	47.2	23.2	3.9	14.2	5.9
One	81.1	18.9	2.8	2.3	10.8	3.0
Two	78.6	21.4	5.7	0.3	9.0	6.4
Three or more	([2])	([2])	([2])	([2])	([2])	([2])
Enrollment status in 1989–90						
Exclusively full time	48.0	52.0	28.2	3.3	14.5	6.1
Mixed	43.6	56.4	22.1	9.3	16.3	8.7
Exclusively part time	70.4	29.6	9.0	2.8	12.5	5.3
Enrollment status, first term						
Full time	48.2	51.8	29.2	4.0	13.5	5.2
At least half time, less than full time	59.4	40.6	12.8	3.1	18.9	5.8
Less than half time	75.5	24.5	7.3	1.6	10.1	5.5
Grade point average in 1989–90						
Below 2.75	53.0	47.0	22.7	2.8	15.3	6.2
2.75–3.24	52.9	47.1	26.3	0.9	15.6	4.3
3.25 or higher	63.3	36.8	15.7	5.7	12.5	2.9
Academic integration in 1989–90[4]						
Low	70.6	29.4	11.2	0.0	10.5	7.7
Moderate	56.5	43.5	20.0	4.9	12.5	6.1
High	55.7	44.3	14.4	7.9	19.6	2.4
Social integration in 1989–90[5]						
Low	81.3	18.7	6.8	2.2	7.8	1.9
Moderate	48.9	51.1	25.6	4.5	13.0	8.0
High	([2])	([2])	([2])	([2])	([2])	([2])
Degree goal in 1989–90[6]						
Not working toward degree	65.6	34.4	4.9	3.8	14.9	10.8
Certificate/license	87.3	12.7	0.5	1.9	4.5	5.9
Associate degree	56.1	43.9	18.7	4.2	15.5	5.6
Bachelor's degree	40.3	59.7	36.5	2.2	16.2	4.8
Degree program in 1989–90[7]						
Undergraduate certificate	57.0	43.0	13.1	3.7		
Associate degree	56.5	43.6	21.5	3.3	13.8	4.9
Bachelor's degree	([2])	([2])	([2])	([2])	([2])	([2])
Other undergraduate	63.3	36.8	14.3	3.0	14.8	4.7

Table 11-1 Among 1989–90 beginning students at community colleges, percentage distribution according to transfer status, by selected characteristics—Continued

Selected characteristics	Did not transfer	First transfer, by destination[1]				
		Total	Public 4-year	Private 4-year	Public less-than-4-year	Private less-than-4-year
Months enrolled in 1989–90						
1–6 months	66.6	33.4	7.0	1.6	17.3	7.6
7–9 months	63.1	36.9	20.8	1.6	9.1	5.4
10–12 months	47.0	53.1	28.9	5.7	14.5	4.0
Received aid in 1989–90						
No	58.1	41.9	17.7	2.9	15.6	5.7
Yes	57.3	42.7	22.9	4.0	10.4	5.6
Received grant in 1989–90						
No	58.1	41.9	17.9	3.3	15.3	5.4
Yes	57.0	43.0	22.9	3.1	10.7	6.3
Received loan in 1989–90						
No	57.5	42.5	19.2	3.3	14.4	5.6
Yes	64.4	35.6	17.7	2.4	9.8	5.8
Employed while enrolled[8]						
None	78.5	21.5	6.4	0.3	13.0	1.8
1–50 percent	40.6	59.4	26.6	3.6	21.1	8.1
More than 50 percent	58.9	41.1	19.2	3.4	12.7	5.7
Hours worked per week while enrolled						
None	55.3	44.7	15.6	2.5	21.7	4.8
1–20 hours	46.8	53.2	32.2	3.3	11.9	5.7
More than 20 hours	61.6	38.4	16.5	3.4	12.7	5.8
Attainment before transfer						
Did not transfer	100.0	(9)	(9)	(9)	(9)	(9)
Transferred without credential	(9)	100.0	37.1	6.9	39.3	16.7
Transferred with certificate	(9)	(2)	(2)	(2)	(2)	(2)
Transferred with associate degree	(9)	100.0	79.8	10.8	8.2	1.2

[1] Destination of first transfer. See the supplemental note to this indicator for a definition of transfer.

[2] Too few sample observations for a reliable estimate.

[3] Limited to dependent students.

[4] Examines whether the student attended career-related lectures, participated in study groups with other students, talked about academic matters with faculty, or met with advisor concerning academic plans.

[5] Examines whether the student had contact with faculty outside the class, went places with friends from school, or participated in student assistance center/programs or school clubs.

[6] Student-reported degree goal.

[7] Institution-reported degree program.

[8] Percent of months enrolled in which a student was also employed (1989–94).

[9] Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Note to Indicator 11: Community college outcomes

The tables and figures presented in this analysis describe outcomes for first-time beginning students in postsecondary education who were enrolled in community colleges in academic year 1989–90. While this represents nearly half of all first-time beginners (45 percent), it represents a minority of the community college student body (22 percent) because it excludes continuing and returning students.

1994 attainment at any institution

The columns in the text table and table 11-1 that describe students' attainment and enrollment status as of 1994 characterize students with respect to highest postsecondary award attained and current enrollment status. Some students who attained an associate degree also attained a certificate, and some students who attained a bachelor's degree also attained a certificate or an associate degree. Those who completed a certificate and an associate degree were broken out with respect to enrollment at a 4-year institution. For these students, the "not enrolled at 4-year" column includes students who were enrolled at less-than-4-year institutions and students who were not enrolled.

Definition of transfer

Since the Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94) does not include information on the transfer of credit between institutions, transfer as defined for this analysis does not imply transfer of credit. Rather, it simply characterizes observed transitions between institutions. For transfer to a less-than-4-year institution, any transition that was not followed by a return to the first institution constitutes a transfer. For transfer to a 4-year institution, any entry into a 4-year institution constitutes a transfer, regardless of subsequent enrollment at the institution of origin.

It is also important to note that the transfer measures refer to the *first* transfer. Students may transfer more than once. For example, some students classified as having transferred to a less-than-4-year institution may have subsequently entered a 4-year institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Table 12-1 Percentage distribution of 1989–90 beginning postsecondary students seeking bachelor's degrees, by persistence toward and completion of bachelor's and other degrees as of spring 1994 and selected characteristics

	Completed a degree					No degree, no longer enrolled toward a bachelor's						
	Highest degree completed[1]			Total any degree	Still enrolled for bachelor's[2]	Total no degree	Number of months enrolled[3]					
Selected characteristics	Bachelor's	Associate	Certificate				Less than 9	9–18	19–27	28–36	37–45	More than 45
Total	**45.8**	**5.1**	**3.3**	**54.3**	**17.5**	**28.3**	**2.8**	**8.1**	**5.7**	**5.6**	**3.8**	**2.3**
Sex												
Male	41.3	4.8	2.7	48.8	20.3	30.9	2.9	9.6	6.7	5.9	3.9	1.9
Female	50.3	5.4	4.0	59.7	14.6	25.7	2.8	6.6	4.7	5.3	3.6	2.7
Age as of 12/31/89												
18 years or younger	51.4	4.9	2.9	59.2	16.4	24.5	1.5	5.2	5.9	5.7	3.5	2.7
19 years	38.3	4.2	3.4	45.8	21.1	33.0	4.0	13.4	4.4	6.0	3.4	1.6
20–29 years	19.0	9.4	7.9	36.3	19.6	44.1	8.2	17.9	6.5	2.8	7.7	0.9
30 years or older	9.8	6.0	3.3	19.1	17.3	63.5	19.4	28.9	4.8	9.9	0.5	0.0
Race/ethnicity												
White	48.1	4.9	3.3	56.4	16.6	27.0	3.0	6.8	5.9	5.3	3.7	2.2
Black	34.3	7.3	3.6	45.2	18.0	36.8	5.4	15.5	5.1	6.1	2.0	2.6
Hispanic	32.4	3.5	5.4	41.3	22.1	36.6	0.5	14.0	6.4	4.6	7.8	3.3
Asian/Pacific Islander	46.8	5.3	0.6	52.8	21.8	25.5	0.0	9.4	2.1	10.2	1.2	2.5
American Indian/Alaskan Native	—	—	—	—	—	—	—	—	—	—	—	—
Marital status in 1989–90												
Never married	48.1	5.3	3.4	56.8	17.4	25.8	1.7	6.9	5.7	5.1	3.8	2.4
Married	20.1	2.4	4.2	26.7	17.8	55.5	13.7	27.6	5.9	7.9	0.4	0.0
Divorced/widowed/separated	11.6	9.5	0.6	21.7	18.4	59.9	28.8	22.8	7.5	0.0	0.9	0.0
Number of children in 1989–90												
None	47.2	5.2	3.2	55.6	17.3	27.1	2.4	7.2	5.7	5.6	3.8	2.4
One	12.8	9.5	2.7	25.0	13.1	61.9	22.4	25.6	9.4	2.8	1.7	0.0
Two	—	—	—	—	—	—	—	—	—	—	—	—
Three or more	—	—	—	—	—	—	—	—	—	—	—	—
Socioeconomic status												
Lowest quartile	22.1	5.7	3.8	31.7	16.5	51.8	8.2	25.0	7.6	5.7	3.4	1.9
Middle two quartiles	38.9	4.8	3.5	47.1	19.4	33.5	3.0	9.5	7.3	7.3	3.4	2.9
Highest quartile	52.9	5.3	3.2	61.5	16.3	22.3	2.1	5.2	4.4	4.5	4.0	2.0
Family income[4]												
Less than $20,000	36.9	4.9	1.4	43.2	19.2	37.6	3.2	10.7	6.8	7.4	6.1	3.4
20,000–39,999	43.2	5.3	4.1	52.6	18.2	29.2	2.9	8.9	5.5	6.3	3.0	2.5
40,000–59,999	48.5	4.1	4.4	57.0	16.1	26.9	1.8	7.2	6.5	5.9	3.4	2.0
60,000 or more	60.6	6.0	1.5	68.1	16.0	15.9	0.4	2.5	3.9	3.6	4.0	1.6
Parents' educational attainment												
Less than high school graduate	33.6	3.6	6.1	43.4	7.8	48.8	10.9	11.1	6.4	11.2	5.7	3.6
High school graduate	35.0	7.3	4.6	46.9	18.4	34.7	6.4	11.6	6.6	5.2	3.3	1.6
Some postsecondary	45.1	4.8	3.0	52.9	17.5	29.6	1.2	9.7	7.7	4.5	3.5	2.9
Bachelor's degree	48.8	5.4	3.6	57.7	19.2	23.1	0.8	4.8	4.6	5.6	4.3	3.0
Advanced degree	61.2	2.9	0.7	64.8	16.4	18.9	1.0	3.0	3.8	5.9	3.7	1.5
High school credential												
High school diploma	46.5	5.2	3.4	54.4	17.3	28.3	2.8	8.1	5.7	5.6	3.7	2.3
Equivalency certificate	—	—	—	—	—	—	—	—	—	—	—	—
None	—	—	—	—	—	—	—	—	—	—	—	—

Table 12-1 Percentage distribution of 1989–90 beginning postsecondary students seeking bachelor's degrees, by persistence toward and completion of bachelor's and other degrees as of spring 1994 and selected characteristics—Continued

	Completed a degree					No degree, no longer enrolled toward a bachelor's						
	Highest degree completed[1]			Total any degree	Still enrolled for bachelor's[2]	Total no degree	Number of months enrolled[3]					
Selected characteristics	Bachelor's	Associate	Certificate				Less than 9	9–18	19–27	28–36	37–45	More than 45
Diploma/delayed entry status[5]												
Diploma, did not delay	50.3	4.9	2.9	58.2	17.0	24.8	1.8	6.3	5.4	5.5	3.5	2.3
Diploma, delayed entry	17.3	7.1	6.6	30.9	21.5	47.6	8.9	18.9	7.1	4.3	6.1	2.2
No diploma	15.0	2.4	3.7	21.0	14.1	64.8	13.4	22.7	8.1	18.3	0.8	1.5
Level of first institution												
4-year	57.1	2.5	2.1	61.7	15.3	23.1	1.9	5.5	5.3	4.9	3.3	2.1
2-year	7.9	13.9	7.2	29.0	25.3	45.8	5.4	16.8	7.0	8.2	5.3	3.0
Less-than-2-year	—	—	—	—	—	—	—	—	—	—	—	—
Received aid in 1989–90												
No	36.9	7.0	4.5	48.4	21.0	30.7	3.0	8.7	6.2	6.3	3.8	2.7
Yes	55.1	3.2	2.2	60.4	13.8	25.8	2.7	7.5	5.2	4.9	3.7	1.9
Received loan in 1989–90												
No	42.4	6.1	3.3	51.8	18.9	29.4	2.8	8.7	5.4	6.1	3.9	2.3
Yes	57.7	1.9	3.5	63.1	12.6	24.4	2.8	5.8	6.6	3.9	3.1	2.1
Received grant in 1989–90												
No	39.3	6.9	4.3	50.6	19.6	29.8	3.1	8.6	5.8	6.1	3.9	2.4
Yes	55.1	2.6	1.9	59.6	14.4	26.0	2.4	7.3	5.6	5.0	3.5	2.2
Employed while enrolled[6]												
None	35.0	0.9	1.4	37.3	13.5	49.2	9.3	26.5	5.0	4.3	2.4	1.7
1–50 percent	54.9	4.8	3.1	62.8	17.7	19.5	1.2	4.2	3.7	6.2	2.8	1.4
More than 50 percent	42.9	5.8	3.5	52.1	17.4	30.4	2.8	8.6	6.9	5.2	4.1	2.8
Enrollment status in 1989–90												
Exclusively full time	51.1	5.7	2.6	59.5	15.9	24.6	1.7	6.0	5.7	6.0	3.2	2.1
Mixed	46.4	2.8	6.0	55.1	22.4	22.4	0.3	5.1	4.0	5.4	5.3	2.3
Exclusively part time	4.1	7.8	6.5	18.3	21.6	60.1	14.0	24.0	5.6	3.9	6.2	6.5
Enrollment status, first term												
Full time	51.7	4.1	2.5	58.3	16.7	25.0	1.7	6.6	5.3	5.6	3.5	2.3
At least half, less than full time	14.5	11.5	6.1	32.1	24.5	43.4	5.9	18.9	5.9	2.5	7.8	2.5
Less than half time	10.5	4.9	11.4	26.8	26.8	46.4	17.3	8.0	9.1	8.0	0.3	3.7
Hours worked per week while enrolled												
None	49.8	4.4	2.0	56.2	17.8	26.0	2.3	8.4	3.8	5.8	3.2	2.5
1–20 hours	51.3	5.2	2.5	59.0	16.4	24.5	0.7	5.7	5.7	6.8	4.4	1.3
More than 20 hours	40.4	5.4	4.5	50.3	17.9	31.7	4.5	9.5	6.5	4.8	3.6	2.9
Grade point average in 1989–90												
Below 2.75	37.4	5.2	3.5	46.2	20.0	33.8	3.3	7.9	7.3	7.5	5.8	2.0
2.75 to 3.24	55.1	4.7	2.2	62.0	19.2	18.8	1.0	6.9	2.9	4.4	2.4	1.2
3.25 or higher	63.5	4.3	2.3	70.1	12.3	17.6	1.5	4.5	2.3	4.2	1.6	3.5

Table 12-1 Percentage distribution of 1989–90 beginning postsecondary students seeking bachelor's degrees, by persistence toward and completion of bachelor's and other degrees as of spring 1994 and selected characteristics—Continued

	Completed a degree					No degree, no longer enrolled toward a bachelor's						
	Highest degree completed[1]			Total	Still enrolled	Total	Number of months enrolled[3]					
Selected characteristics	Bachelor's	Associate	Certificate	any degree	for bachelor's[2]	no degree	Less than 9	9–18	19–27	28–36	37–45	More than 45
Months enrolled in 1989–90												
1–6 months	7.2	11.9	6.5	25.6	16.3	58.1	22.4	14.6	8.6	7.7	4.5	0.3
7–9 months	50.2	4.2	3.2	57.6	15.4	27.0	1.2	9.6	5.8	5.5	3.2	1.7
10–12 months	50.7	4.3	2.8	57.9	18.9	23.2	0.0	5.9	5.1	5.3	3.9	3.0
Academic integration in 1989–90[7]												
Low	24.1	9.9	5.4	39.5	18.0	42.5	8.5	18.0	10.1	2.3	1.7	1.9
Moderate	36.8	5.5	3.6	45.8	19.1	35.1	4.8	11.0	7.2	5.5	3.3	3.2
High	52.0	4.5	3.0	59.5	16.5	24.0	1.3	6.0	4.7	5.9	4.2	2.0
Social integration in 1989–90[8]												
Low	19.1	6.2	6.1	31.4	22.3	46.4	8.9	25.2	6.6	2.4	0.4	3.0
Moderate	39.1	6.8	3.4	49.4	18.5	32.1	3.5	9.3	6.5	5.7	4.5	2.7
High	56.9	3.1	2.7	62.7	15.5	21.8	1.0	4.6	4.8	6.1	3.5	1.9
Self-rating of academic ability												
Above average	61.6	2.7	1.5	65.8	15.0	19.2	0.7	5.4	4.1	4.0	3.1	1.9
Average or below	34.3	6.8	4.6	45.7	19.1	35.2	4.3	10.0	7.0	6.9	4.3	2.6

— Not available.

[1] Includes only students who are no longer working toward a bachelor's degree, but who had completed another type of degree or award.

[2] Includes students who had completed another type of degree or award (associate degree, 11.8 percent; certificate: 2.7 percent), but are still working toward a bachelor's degree.

[3] Enrollment can be full time or part time. Includes students who are still enrolled but are no longer working toward a bachelor's degree.

[4] Limited to dependent students.

[5] Students were considered to have a diploma only if they had a regular high school diploma. Students with a GED or other high school credentials were considered to have no diploma.

[6] Percent of months enrolled in which a student was also employed in 1989–94.

[7] Examines whether the student attended career-related lectures, participated in study groups with other students, talked about academic matters with faculty, or met with advisor concerning academic plans.

[8] Examines whether the student had contact with faculty outside of class, went places with friends from school, or participated in student assistance centers/programs, or school clubs.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Note to Indicator 12: Postsecondary persistence and degree completion

This analysis was constructed using data from the Beginning Postsecondary Students Longitudinal Study (BPS). BPS is based on a subsample of the 1990 National Postsecondary Student Aid Study (NPSAS), which consists of students beginning their postsecondary education for the first time at community colleges, vocational schools, and institutions granting bachelor's degrees during the 1989–90 academic year. The BPS First Follow-up survey was conducted in the spring of 1992, 2 years after the student's entry into postsecondary education, and the Second Follow-up was conducted during the spring of 1994. BPS provides detailed information regarding the individual student's attendance patterns for 5 years following his or her first enrollment into postsecondary education. (For more information on BPS, see the *Sources of Data* section.)

This analysis examines persistence toward and completion of bachelor's and other types of degrees for students whose initial postsecondary degree objective when they first began postsecondary education in academic year 1989–90 was a bachelor's degree, without regard to the type of institution in which they first enrolled. Using the student's reported degree objective rather than the type of program offered by the particular institution permits comparison of rates of persistence and degree completion between students with the same degree objective but with different demographic, institutional, and attendance characteristics.

Initial degree objective

Whether the student was seeking a bachelor's degree was determined by his or her response to the question "Toward which degree or other award are the courses you are taking leading?" Students could therefore be attending a 2-year institution but their degree objective was a bachelor's degree. Half of all beginning postsecondary students were working toward a bachelor's degree in 1989–90, and 25 percent of these students began at 2-year institutions that did not offer bachelor's degrees.

Persistence and degree completion

As this analysis was constructed, students were first divided into two broad categories: those who completed a bachelor's degree, and those who did not. Without regard to completion of other degrees, students who had not attained a bachelor's degree were then classified according to whether or not they were still enrolled toward a bachelor's degree. Students who were still enrolled toward a bachelor's degree were classified as such, while those who were no longer enrolled toward a bachelor's degree but had completed an associate degree or certificate were categorized according their highest degree completed. The remaining students who had not completed a degree after 5 years (bachelor's degree, associate degree, or certificate), or who were still enrolled but not working toward a bachelor's degree, were categorized according to the number of months they were enrolled in postsecondary education. It is important to note that the number of months enrolled are not necessarily continuous months, so they cannot be used as an indicator of when the student left postsecondary education or stopped working toward a bachelor's degree. Rather, presenting the data in this manner is designed to give an indication of the time spent in postsecondary attendance, although no degree was completed.

Table 13-1 Adult education[1] participation rates in the past 12 months, by type of adult education activity, educational attainment, labor force status, race/ethnicity, age, and sex: 1995

Selected characteristics	Total[2]	Type of adult education activity Basic skills[3]	Credential[2]	Work-related	Personal development
			Male and female		
Total	**40.2**	**1.2**	**6.1**	**20.9**	**19.9**
Educational attainment					
Grades 9–12[4]	22.9	5.6	1.6	6.9	10.4
High school diploma or GED	30.9	0.8	3.5	14.2	15.7
Vocational/technical school	41.9	0.6	5.4	21.9	21.1
Some college	49.3	0.5	12.1	22.3	25.3
Associate degree	56.1	0.4	10.9	32.1	27.4
Bachelor's degree or higher	58.2	—	7.7	37.9	27.9
Labor force status					
Employed	50.7	1.1	8.2	31.1	22.0
Unemployed	36.6	5.0	5.5	11.1	17.4
Not in labor force	21.3	0.9	2.2	3.4	16.2
Race/ethnicity					
White	41.5	0.7	6.0	22.8	20.8
Black	37.0	2.3	7.3	16.2	18.9
Hispanic	33.7	3.6	4.8	11.8	13.8
Age					
17–24	47.0	4.6	12.6	14.7	21.5
25–34	48.4	1.2	9.4	25.8	22.2
35–44	49.2	1.1	7.3	30.1	22.8
45–54	45.9	0.6	4.9	29.7	20.5
55–64	28.0	0.2	1.1	14.2	16.3
65 and older	15.2	[5]0.0	0.2	2.3	13.5
			Male		
Total	**38.2**	**1.2**	**5.6**	**21.8**	**15.8**
Educational attainment					
Grades 9–12[4]	25.0	5.9	2.4	7.9	9.6
High school diploma or GED	27.4	0.8	3.7	14.4	11.2
Vocational/technical school	39.8	1.1	5.3	22.2	14.6
Some college	44.8	0.5	10.2	22.2	19.8
Associate degree	52.3	0.4	11.5	31.7	21.5
Bachelor's degree or higher	54.7	—	6.4	37.6	22.6
Labor force status					
Employed	46.5	1.1	7.0	29.0	17.9
Unemployed	33.3	4.7	3.9	11.3	14.6
Not in labor force	16.3	0.8	2.1	3.7	10.5
Race/ethnicity					
White	39.1	0.7	5.4	23.8	16.2
Black	34.9	1.6	7.6	15.4	17.1
Hispanic	34.5	4.5	4.1	13.0	11.5
Age					
17–24	46.1	5.2	10.9	14.9	18.9
25–34	46.1	1.1	9.0	26.7	17.4
35–44	47.1	0.9	6.5	30.7	18.3
45–54	41.8	0.5	3.9	29.0	15.8
55–64	24.7	[5]0.0	1.2	14.3	12.7
65 and older	11.9	[5]0.0	0.2	2.9	9.4

Table 13-1 Adult education[1] participation rates in the past 12 months, by type of adult education activity, educational attainment, labor force status, race/ethnicity, age, and sex: 1995—Continued

		Type of adult education activity			
Selected characteristics	Total[2]	Basic skills[3]	Credential[2]	Work-related	Personal development
			Female		
Total	**42.1**	**1.2**	**6.5**	**20.2**	**23.5**
Educational attainment					
Grades 9–12[4]	21.2	5.4	1.1	6.0	11.1
High school diploma or GED	33.7	0.7	3.4	13.9	19.4
Vocational/technical school	43.0	0.3	5.5	21.6	24.8
Some college	53.2	0.5	13.7	22.4	30.0
Associate degree	59.7	0.3	10.4	32.4	32.8
Bachelor's degree or higher	62.4	—	9.3	38.3	34.1
Labor force status					
Employed	55.6	1.1	9.7	33.4	26.8
Unemployed	39.9	5.2	7.0	10.9	20.1
Not in labor force	24.2	0.9	2.3	3.2	19.4
Race/ethnicity					
White	43.8	0.7	6.6	21.9	25.1
Black	38.4	2.7	7.1	16.7	20.1
Hispanic	32.8	2.8	5.4	10.6	15.9
Age					
17–24	48.0	4.1	14.3	14.4	24.0
25–34	50.4	1.3	9.7	25.1	26.5
35–44	51.3	1.3	8.1	29.4	27.3
45–54	49.9	0.6	5.9	30.4	25.1
55–64	31.1	0.4	1.1	14.2	19.5
65 and older	17.6	[5]0.0	0.1	1.8	16.4

— Not applicable.

[1] Adult education includes educational programs at all levels. See the glossary for the definition of adult education.

[2] The participation rate of adults age 17 or older was determined by their involvement in one or more of six types of adult education activities in the 12 months prior to the interview; therefore, percentages may not add to totals because people participated in more than one type of activity (9 percent). Adults who participated in apprenticeship programs and English as a Second Language programs were included in the total, but are not shown separately. Adults who reported that they had participated only as full-time credential seekers were not included in the calculation of the participation rates.

[3] Only adults who had not received a high school diploma or its equivalent, who had received a high school diploma in the past 12 months, or who had received a high school diploma in a foreign country were asked about their participation in the basic education/General Educational Development (GED) activities.

[4] Includes adults whose highest education level was grades 9–12 who had not received a high school diploma.

[5] Percents less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1995 (Adult Education Component).

Table 13-2 Percentage of adults taking one or more work-related courses, by type of provider, educational attainment, labor force status, race/ethnicity, and age: 1995

	Type of provider for work-related adult education activities						
Characteristics	Elementary/ secondary	Post-secondary	Trade organization	Private	Business	Government	Other
Total	**4.3**	**20.4**	**11.1**	**6.6**	**59.6**	**17.3**	**2.5**
Educational attainment							
Grades 9–12*	5.1	15.8	8.0	4.4	61.8	13.3	1.8
High school diploma or GED	3.6	13.5	9.0	6.0	62.4	17.2	2.5
Vocational/technical school	1.0	19.0	13.4	4.1	67.5	9.5	2.8
Some college	2.1	18.6	10.9	7.1	58.2	18.9	2.3
Associate degree	1.3	18.4	18.8	5.0	57.7	17.7	1.2
Bachelor's degree or higher	6.3	25.4	10.8	7.4	58.4	17.7	2.6
Labor force status							
Employed	4.4	20.1	10.9	6.4	60.7	17.4	2.4
Unemployed	2.4	29.6	13.2	6.1	47.5	16.2	5.9
Not in labor force	3.1	22.4	14.2	10.0	46.3	17.3	2.1
Race/ethnicity							
White	4.4	20.2	10.8	6.5	61.3	16.7	2.4
Black	3.2	20.8	12.9	6.3	47.8	23.1	2.5
Hispanic	5.6	22.0	10.7	7.7	57.3	15.5	2.9
Age							
17–24	3.1	24.1	7.8	6.2	54.7	13.4	1.4
25–34	2.8	17.1	12.2	6.9	63.2	14.7	2.9
35–44	4.3	19.9	11.4	6.2	61.1	18.1	2.2
45–54	6.2	23.5	10.5	6.9	57.9	18.7	3.1
55–64	4.5	21.3	10.7	5.6	54.4	22.5	1.7
65 and older	3.9	16.8	14.1	10.9	49.9	21.5	0.0

* Includes adults whose highest education level was grades 9–12 who had not received a high school diploma.

NOTE: Information on the type of provider of adult education activities was aggregated as follows: Elementary/secondary: elementary, junior high school, or high school; Postsecondary: 2-year community or junior college, 2-year vocational school, or 4-year college or university; Trade organization: private vocational, trade, business, hospital, or flight school, and adult learning center; Private: private community organization, church or religious organization, tutor, or private instructor; Business: business or industry or professional association; and Government: federal, state, county, or local government, or public library. Percentages were based on individuals who participated in work-related activities only. Because individuals may take more than one work-related adult education course, details may add to more than 100.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1995 (Adult Education Component).

Table 14-1 Net price of attending postsecondary education and student financial assistance for dependent full-time, full-year undergraduates, by control and type of institution and family income: Academic year 1995–96

Control and type of institution and family income	Average tuition and fees	Average total price	Average grants	Average total aid	Average net price	Average unmet need	Ratio of total aid to total price
Public 4-year							
Nondoctorate-granting	**$3,255**	**$9,432**	**$1,254**	**$3,235**	**$6,195**	**$1,855**	**34.9**
Low income	3,086	9,073	2,766	4,710	4,354	3,577	52.6
Lower middle	3,181	9,243	1,303	3,828	5,415	2,519	41.2
Upper middle	3,296	9,464	566	2,535	6,929	938	26.9
High income	3,489	10,034	286	1,664	8,371	175	16.4
Doctorate-granting	**4,266**	**11,457**	**1,467**	**3,634**	**7,827**	**2,145**	**32.1**
Low income	3,902	10,942	3,466	6,011	4,930	3,955	55.4
Lower middle	3,952	11,141	1,694	4,507	6,634	3,371	40.2
Upper middle	4,019	11,140	757	2,830	8,309	1,731	25.0
High income	4,925	12,273	570	2,121	10,167	445	16.9
Private, not-for-profit 4-year							
Nondoctorate-granting	**11,589**	**17,751**	**4,767**	**8,551**	**9,200**	**3,626**	**48.5**
Low income	10,243	16,220	6,193	9,817	6,403	5,440	60.4
Lower middle	11,197	17,210	5,850	10,194	7,016	4,123	58.0
Upper middle	12,048	18,205	4,682	9,224	8,981	3,134	50.3
High income	12,753	19,218	2,589	5,343	13,875	1,969	27.7
Doctorate-granting	**16,124**	**23,898**	**5,223**	**9,224**	**14,677**	**5,926**	**38.5**
Low income	15,425	23,060	9,013	13,706	9,357	8,071	58.4
Lower middle	15,675	23,243	8,729	13,766	9,477	6,416	57.6
Upper middle	15,789	23,499	4,712	8,873	14,641	7,144	36.8
High income	16,789	24,748	2,342	5,500	19,250	4,190	22.4
Public 2-year	**1,316**	**6,761**	**694**	**1,044**	**5,718**	**1,778**	**17.0**
Low income	1,202	6,369	1,750	2,198	4,171	3,231	37.7
Lower middle	1,315	6,883	556	924	5,959	2,654	14.3
Upper middle	1,416	6,954	188	574	6,380	595	8.7
High income	1,331	6,849	141	271	6,578	127	3.9
Private, for-profit	**7,450**	**13,525**	**1,179**	**5,321**	**8,162**	**4,081**	**39.8**
Low income	7,236	13,037	2,205	6,174	6,765	6,153	48.3
Lower middle	7,263	13,169	938	5,838	7,331	4,330	44.3
Upper middle	7,770	14,147	427	4,816	9,331	3,020	33.3
High income	7,811	14,371	86	3,362	10,963	516	23.1

NOTE: Total price includes budgeted allowances for student living expenses; total aid includes grants, loans, and work study; net price is total price minus total aid; unmet need is total price minus total aid minus the expected family contribution. Family income categories are income quintiles for dependent students. Only students who attended one institution are included. Averages include zero values. See the supplemental note to this indicator for more detailed definitions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Note to Indicator 14: Net price of college attendance

The following definitions, used in the tables of this analysis, clarify who or what is included or excluded in the various statistics. The sample consists of dependent full-time, full-year students who attended one postsecondary institution during the academic year 1995–96. The specific terms used in the analysis are defined as follows:

Family income: The four income categories, "low income," "lower middle," "upper middle," and "high income" are calculated on the basis of family income for dependent students, and correspond to the four quartiles of the distribution of parental family income. The quartile cutpoints for dependent student income are about $25,000, $46,000, and $70,000.

Dependency status: Students were considered dependent for purposes of federal financial aid programs unless institutional records indicated they were:

- Age 24 or older as of 12/31/95 (born before January 1, 1972)
- A veteran of the U.S. Armed Forces
- Enrolled in a graduate or professional program (beyond a bachelor's degree) in 1995–96
- Married
- Orphan or ward of the court
- Had legal dependents, other than spouse

If any of these conditions were met, the student was classified as independent for purposes of financial aid.

Tuition and fees: The amount of tuition the student was charged for the terms attended during academic year 1995–96, as reported by the NPSAS institution. If tuition amounts were not reported, they were estimated based on the average per credit or per term charges for other students at the institution according to their class level, degree program, and attendance status.

Total price: The attendance-adjusted student budget at the sampled NPSAS institution for students who attended only one institution during academic year 1995–96. The student budget is the sum of actual tuition and fees and a budgeted amount for nontuition expenses, including room and board, transportation, books and supplies, and other costs. For students attending at least half time but less than full time, nontuition costs are reduced to 75 percent of the allowance for full-time, full-year students, to 50 percent for students with unknown attendance status, and to 25 percent for students attending less than half time. The actual tuition is added to the estimated nontuition costs. Students who attended more than one institution are excluded from the tables in this analysis.

Grants: Total amount of all grants and scholarships: federal, state, institutional, and other received during academic year 1995–96, including employer tuition reimbursements.

Total aid: Indicates the total amount of all financial aid received during academic year 1995–96, including grants, loans, and work study.

Net price: Total price (attendance-adjusted student budget, which includes tuition and fees and nontuition costs) minus total aid. Loan and work-study amounts are included. Net price does not include the future cost of interest payments on loans that must be repaid.

Expected family contribution: The expected family contribution (EFC) is used to calculate a student's need for financial aid. EFC is calculated using the Congressional Methodology (CM). The CM EFC is the sum of the student contribution and the parent contribution. The student is expected to contribute from savings and from summer jobs. The amount parents are expected to contribute depends on their income, assets, and the number of other children in college. The EFC value used in this analysis was taken from the following sources: the Pell grant payment file, the applications students submitted for federal financial aid, or the financial aid records from the NPSAS institution, or were estimated by regressions based on dependency, family size, income, assets, and number of children in college. For Pell grant recipients, the EFC on the Pell payment file was always used; for other financial aid recipients, the primary EFC from the most recent federal financial aid application record was used if available, or an EFC reported by the institution. The EFC can be interpreted as what is a reasonable amount for the student and family to contribute from currently available resources toward the student's postsecondary education.

Unmet need: Total price (attendance-adjusted amount for tuition and fees and nontuition costs) minus the EFC minus total aid. Unmet need is a measure of the amount students and their parents must finance in addition to the EFC to meet estimated costs of attendance and student living.

Table 15-1 **Percentage of undergraduates who borrowed, and the average amount and average cumulative amount borrowed from federal loan programs, by control and type of institution and selected student characteristics: Academic years 1992–93 and 1995–96**

	Public 4-year				Private, not-for-profit 4-year			
	Current Year			Average	Current Year			Average
Selected student characteristics	Percent who borrowed	Average amount borrowed	Percent who ever borrowed	cumulative amount borrowed	Percent who borrowed	Average amount borrowed	Percent who ever borrowed	cumulative amount borrowed
				1992–93				
Total	**24.5**	**$3,007**	**36.0**	**$5,915**	**34.6**	**$3,591**	**44.9**	**$6,984**
Income status								
Dependent								
Less than $10,000	45.7	2,779	57.4	5,289	55.0	3,158	60.0	6,165
10,000–19,999	49.3	2,669	58.1	5,430	59.1	3,107	68.9	6,123
20,000–29,999	44.8	2,626	55.1	5,098	68.3	3,225	75.6	6,318
30,000–39,999	38.2	2,696	47.9	5,081	62.4	3,391	69.8	6,923
40,000–49,999	27.2	2,586	37.5	4,778	57.1	3,351	60.8	6,614
50,000–59,999	12.8	2,601	20.7	4,555	39.6	3,253	44.5	5,858
60,000–69,999	9.2	2,560	17.3	4,826	25.8	3,219	31.7	6,114
70,000–79,999	11.3	2,933	17.3	4,594	25.8	3,234	30.8	6,402
80,000–99,999	7.5	2,833	13.9	5,168	27.7	3,435	35.2	5,964
100,000 or more	3.0	3,142	5.9	3,972	7.1	3,357	9.6	5,466
Independent								
Less than $5,000	47.1	3,488	60.5	8,257	46.1	3,837	60.5	8,416
5,000–9,999	46.0	3,375	59.4	7,477	51.3	4,287	66.9	8,987
10,000–19,999	28.4	3,524	48.0	6,438	31.7	4,716	53.2	8,564
20,000–29,999	17.1	3,556	37.8	6,592	21.0	4,274	41.5	7,219
30,000–49,999	12.2	3,595	28.9	6,300	15.1	4,459	31.4	7,476
50,000 or more	4.4	3,042	23.3	5,065	12.0	4,726	26.3	6,888
Race/ethnicity								
White	23.6	3,034	34.7	6,011	33.9	3,699	43.9	7,214
Black	33.5	2,873	50.6	5,546	49.2	3,190	63.7	6,526
Hispanic	21.0	2,896	35.0	5,338	25.9	3,280	38.7	5,828
Asian/Pacific Islander	17.0	2,878	25.5	5,567	26.5	3,894	30.9	6,802
American Indian/Alaskan Native	24.1	3,069	44.5	5,311	36.8	(*)	61.2	(*)

Table 15-1 **Percentage of undergraduates who borrowed, and the average amount and average cumulative amount borrowed from federal loan programs, by control and type of institution and selected student characteristics: Academic years 1992–93 and 1995–96—Continued**

Selected student characteristics	Public 4-year: Current Year: Percent who borrowed	Public 4-year: Current Year: Average amount borrowed	Public 4-year: Percent who ever borrowed	Public 4-year: Average cumulative amount borrowed	Private, not-for-profit 4-year: Current Year: Percent who borrowed	Private, not-for-profit 4-year: Current Year: Average amount borrowed	Private, not-for-profit 4-year: Percent who ever borrowed	Private, not-for-profit 4-year: Average cumulative amount borrowed
				1995–96				
Total	**35.4**	**$4,130**	**47.2**	**$7,904**	**44.3**	**$4,499**	**53.7**	**$8,682**
Income status								
Dependent								
Less than $10,000	41.2	3,580	47.4	6,674	53.7	3,760	60.6	7,079
10,000–19,999	50.3	3,503	59.3	6,478	62.9	4,105	70.3	8,422
20,000–29,999	49.8	3,632	56.7	7,218	67.9	4,340	71.8	8,411
30,000–39,999	49.0	3,782	55.4	7,087	63.8	4,213	70.6	7,827
40,000–49,999	44.6	3,644	52.1	6,666	61.4	4,200	66.1	7,965
50,000–59,999	34.8	3,481	44.3	6,282	53.8	4,108	59.1	7,889
60,000–69,999	32.4	3,610	41.2	6,688	51.4	4,031	55.2	7,705
70,000–79,999	25.9	3,880	32.9	6,647	42.7	3,931	46.0	7,357
80,000–99,999	25.5	3,621	32.9	6,251	41.3	3,739	48.3	6,720
100,000 or more	10.4	3,643	17.2	5,161	22.0	3,772	25.9	6,463
Independent								
Less than $5,000	53.4	5,040	68.3	11,766	53.0	5,862	64.5	12,041
5,000–9,999	51.9	4,865	67.0	10,254	45.4	5,879	59.4	11,500
10,000–19,999	38.4	5,364	57.8	9,402	38.5	5,769	54.5	11,145
20,000–29,999	27.0	4,791	47.3	8,524	32.6	5,440	50.1	10,890
30,000–49,999	17.4	5,115	39.2	8,508	23.2	5,750	43.6	9,706
50,000 or more	7.2	4,636	31.0	6,868	11.6	5,543	32.3	8,110
Race/ethnicity								
White	34.7	4,218	46.4	8,059	44.0	4,543	52.6	8,865
Black	48.7	3,764	64.3	7,844	54.6	4,524	66.2	8,808
Hispanic	32.2	3,968	42.8	7,446	41.8	4,105	55.5	7,488
Asian/Pacific Islander	27.9	3,935	37.9	6,780	35.2	4,454	43.7	8,255
American Indian/Alaskan Native	42.2	4,234	57.0	7,726	46.5	(*)	53.4	(*)

* Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 National Postsecondary Student Aid Study (NPSAS:93), and 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Table 16-1 Explanations of levels of reading proficiency

Level 150:	**Simple, discrete reading tasks** Readers at this level can follow brief written directions. They can also select words, phrases, or sentences to describe a simple picture and can interpret simple written clues to identify a common object. Performance at this level suggests the ability to carry out simple, discrete reading tasks.
Level 200:	**Partial skills and understanding** Readers at this level can locate and identify facts from simple informational paragraphs, stories, and news articles. In addition, they can combine ideas and make inferences based on short, uncomplicated passages. Performance at this level suggests the ability to understand specific or sequentially related information.
Level 250:	**Interrelates ideas and make generalizations** Readers at this level use intermediate skills and strategies to search for, locate, and organize the information they find in relatively lengthy passages and can recognize paraphrases of what they have read. They can also make inferences and reach generalizations about main ideas and the author's purpose from passages dealing with literature, science, and social studies. Performance at this level suggests the ability to search for specific information, interrelate ideas, and make generalizations.
Level 300:	**Understands complicated information** Readers at this level can understand complicated literary and informational passages, including material about topics they study at school. They can also analyze and integrate less familiar material and provide reactions to and explanations of the text as a whole. Performance at this level suggests the ability to find, understand, summarize, and explain relatively complicated information.
Level 350:	**Learns from specialized reading materials** Readers at this level can extend and restructure the ideas presented in specialized and complex texts. Examples include scientific materials, literary essays, and historical documents. Readers are also able to understand the links between ideas, even when those links are not explicitly stated, and to make appropriate generalizations. Performance at this level suggests the ability to synthesize and learn from specialized reading materials.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 16-2 Percentage of students ages 9, 13, or 17 scoring at or above five levels of reading proficiency: 1971–96

		Year								
Proficiency level	Age	1971	1975	1980	1984	1988	1990	1992	1994	1996
Level 150:	9	91	93	95	92	93	90	92	92	*93
Simple, discrete	13	100	100	100	100	100	100	100	99	100
reading tasks	17	100	100	100	100	100	100	100	100	100
Level 200:	9	59	62	68	62	63	59	62	63	*64
Partial skills and	13	93	93	95	94	95	94	93	92	93
understanding	17	96	96	97	98	99	98	97	97	*97
Level 250:	9	16	15	18	17	18	18	16	17	18
Interrelates ideas and	13	58	59	61	59	59	59	62	60	61
make generalizations	17	79	80	81	83	86	84	83	81	81
Level 300:	9	1	1	1	1	1	2	1	1	1
Understands complicated	13	10	10	11	11	11	11	15	14	*14
information	17	39	39	38	40	41	41	43	41	39
Level 350:	9	0	0	0	0	0	0	0	0	0
Learns from specialized	13	0	0	0	0	0	0	1	1	*1
reading materials	17	7	6	5	6	5	7	7	7	6

* Statistically significant difference from 1971.

NOTE: See table 16-1 for further explanations of the proficiency levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 16-3 Percentile distribution of reading proficiency scores, by age and race/ethnicity: 1980–96

Per-	Age 9							Age 13							Age 17						
centile	1980	1984	1988	1990	1992	1994	1996	1980	1984	1988	1990	1992	1994	1996	1980	1984	1988	1990	1992	1994	1996
All students																					
5	149	141	142	135	141	140	142	199	197	200	196	191	188	192	213	220	226	220	214	211	213
10	165	157	157	150	156	156	158	213	210	213	210	208	205	209	231	236	242	237	233	230	231
25	191	184	184	179	183	184	185	235	234	234	233	235	233	235	259	263	266	264	263	260	259
50	217	213	214	210	214	215	216	260	258	258	257	262	260	261	288	290	291	291	293	290	288
75	241	240	240	240	239	240	241	283	282	281	282	287	285	286	315	317	316	319	319	319	316
90	262	263	263	266	260	260	262	302	302	302	302	309	307	307	338	340	337	343	343	343	340
95	273	277	278	280	272	272	274	314	314	314	314	322	320	319	351	353	349	356	356	358	354
White																					
5	161	152	150	144	153	152	154	209	205	204	204	204	200	205	229	230	233	229	228	222	225
10	175	167	165	160	167	168	169	222	218	217	217	219	217	221	244	246	247	246	245	241	242
25	199	192	192	188	193	194	195	243	241	238	240	243	242	245	268	271	271	271	272	270	269
50	223	220	219	218	221	221	223	265	263	262	263	268	267	269	294	297	295	298	300	298	296
75	246	245	244	247	244	244	246	287	286	285	286	292	290	291	319	322	320	324	325	324	322
90	265	267	267	271	264	263	266	306	305	304	306	312	311	311	341	343	340	347	347	347	346
95	276	280	281	285	276	275	279	317	317	316	318	324	324	324	354	356	352	360	359	361	358
Black																					
5	123	121	125	115	119	119	123	179	180	191	182	170	170	176	176	202	214	201	188	192	200
10	139	135	138	129	132	133	136	191	192	202	194	185	183	188	191	216	228	217	206	210	216
25	165	159	162	153	156	155	161	211	213	222	217	210	208	211	217	239	251	242	235	239	241
50	192	187	188	182	185	186	190	233	236	242	243	239	236	237	244	264	274	268	263	268	266
75	216	213	217	211	214	216	220	255	259	264	266	266	261	261	270	288	300	294	288	296	290
90	236	235	238	236	236	237	242	275	280	284	286	287	283	281	293	311	321	316	312	318	314
95	247	248	252	251	249	248	255	286	293	299	299	303	295	292	307	324	333	331	328	335	330
Hispanic																					
5	123	120	122	125	125	119	124	183	181	181	178	165	174	174	194	202	204	206	193	187	198
10	138	135	140	139	139	134	139	195	193	195	191	184	187	190	208	217	218	224	213	203	212
25	164	161	165	161	163	157	166	215	216	219	214	213	211	216	235	242	246	250	241	236	237
50	192	189	196	189	193	184	197	238	240	240	239	242	236	242	263	269	274	276	275	264	264
75	218	215	222	219	222	216	223	259	264	262	262	267	260	265	289	295	298	303	303	294	293
90	238	236	247	239	245	243	246	279	284	284	284	289	282	288	313	318	316	327	326	318	317
95	250	247	259	253	255	255	256	291	296	297	296	303	298	300	325	332	328	339	337	331	329

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Note to Indicator 16: NAEP Cohorts

Long-term trend

Three of the NAEP assessments, reading, mathematics, and science, report trends in the progress of students by age. Proficiencies are reported for those students ages 9, 13, and 17. The modal grades for students at these ages are 4th, 8th, and 11th grade. The fourth assessment, writing, is given to students in grades 4, 8, and 11, regardless of their age. In all four subjects, it would appear that the time span between the youngest and middle age/grade is greater than between the middle and oldest group. However, the way age is defined (on a calendar or fiscal year basis) and the time at which each age/grade is assessed (fall, winter, or spring) results in the same length of time (or years of schooling) between the three age/grade groups. A discussion of this methodology follows.

Age is determined on a calendar year basis for 9- and 13-year-olds, but on a fiscal year basis for 17-year-olds. In other words, the reading, mathematics, and science scores in 1994 represent students born in 1984 (9-year-olds), students born in 1980 (13-year-olds), and students born between October 1, 1976, and September 30, 1977 (17-year-olds). The writing scores represent students in grades 4, 8, or 11 at the time of the assessment, regardless of age.

In addition to different age definitions, the time of the school year when the assessment is administered varies across age levels: 9-year-olds/4th-graders are tested in the winter; 13-year-olds/8th-graders are tested in the fall; and 17-year-olds/11th-graders are tested in the spring on each of the assessments. Since 9-year-olds are tested between January and February of the year in which they turn 10, and 13-year-olds are tested between October and December of the year in which they turn 13, the 13-year-olds have had almost 3 3/4 more years of schooling than the 9-year-olds. Likewise, since 17-year-olds are tested between March and May, they are between 16 1/2 and 17 1/2 at the time of the assessment (the difference is due to age being determined on a fiscal year basis); thus, they have had about 3 3/4 more years of exposure to school than 13-year-olds.

These different means of determining a student's age and the various testing times have been adopted in order to measure a uniform period of growth among the three age/grade groups. Comparing age/grade cohorts over time can be more problematic, however. Nine-year-olds in 1990 generally represent the same age cohort as 13-year-olds in 1994—two points in time not quite 4 years apart. However, the 17-year-olds tested in 1994 were generally younger than the 1990 13-year-old age cohort was in 1994. Therefore, care must be taken when examining student cohorts across assessments in different years.

Short-term trend

Although *Indicator 18* (Trends in the mathematics proficiency of 9-, 13-, and 17-year-olds) focused primarily on the trend data described above, supplemental data from the *NAEP 1996 Mathematics Report Card* were also included. These more recent data allow for trend comparisons just over the short term, since only the scores from the 1990, 1992, and 1996 surveys are comparable. These data were based on a separate survey instrument than those from the long-term trend data and were given to different students. The short-term trend assessment was designed using a framework influenced by the National Council for Teachers of Mathematics (NCTM) Curriculum and Evaluation Standards for School Mathematics. The long-term trend assessment has remained unchanged since its original design in 1973 and can be used to make comparisons in the performance of students over the past 21 years. One important difference of the short-term trend data is that 4th-, 8th-, and 12th-graders were assessed rather than 9-, 13-, and 17-year-olds, thus allowing for comparisons across cohorts.

Table 17-1 Explanations of levels of writing proficiency

Level 150:	**Disjointed, unclear writing** Writing at this level tends to be too brief and disjointed to be considered a response to the task or, when longer, so vague and unclear that it is hard to understand.
Level 200:	**Incomplete, vague writing** The writing at this level, although clearer and more detailed than at the previous level, still tends to be vague and incomplete.
Level 250:	**Beginning focused, clear writing** Writing at this level tends to be more focused and clear, containing enough development and detail so that it is likely to accomplish the assigned task successfully.
Level 300:	**Complete, sufficient writing** Responses at this level tend to be complete and to contain sufficient information to accomplish the basic task.
Level 350:	**Effective, coherent writing** The writing at this level provides clear complete responses to the assigned task. It tends to contain supportive details and discussion that contributed to the effectiveness of the response. This writing is also characterized by an overall unity and coherence not found at the lower levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 17-2 Percentage of students at or above each of five writing proficiency levels: 1984–96

		Year					
Proficiency levels	Grade	1984	1988	1990	1992	1994	1996
Level 150:	4	93	91	89	93	92	93
Disjointed, unclear	8	100	100	[2]100	100	100	100
writing	11	100	100	100	100	100	100
Level 200:	4	54	56	53	58	56	59
Incomplete, vague	8	[1]98	97	[1,2]93	98	96	[2]96
writing	11	100	100	99	100	99	99
Level 250:	4	10	15	12	13	12	13
Beginning focused,	8	72	67	[1,2]57	[1]75	67	[2]66
clear writing	11	[1]89	[1]93	[2]84	87	[2]85	[2]83
Level 300:	4	1	1	1	1	0	1
Complete, sufficient	8	13	13	[1]12	[1,2]25	17	16
writing	11	39	[1]39	37	36	33	[2]31
Level 350:	4	0	0	0	0	0	0
Effective, coherent	8	[1]0	0	[2]1	[1,2]2	[2]1	1
writing	11	2	[1]1	[1]4	2	3	2

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1984.

NOTE: See the supplemental note to *Indicator 16* for further discussion of NAEP assessments. The writing proficiency scale has a range from 0 to 500. See supplemental table 17-1 for detailed explanations of the proficiency levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 17-3 Percentile distribution of writing proficiency scores, by grade and race/ethnicity: 1984–96

	Grade 4						Grade 8						Grade 11					
Percentile	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
All students																		
5	144	135	131	142	140	142	216	209	195	214	204	202	236	244	227	233	227	225
10	157	151	147	157	155	158	227	222	208	227	218	216	249	255	240	246	240	238
25	179	177	174	182	180	182	247	242	231	250	242	240	269	273	262	266	262	260
50	204	207	203	208	206	209	268	264	257	275	266	264	291	292	288	288	285	283
75	229	235	231	233	232	234	288	286	282	300	290	288	312	311	312	310	308	307
90	250	259	255	256	253	255	304	305	304	320	311	310	330	326	334	328	328	327
95	263	274	268	269	266	268	313	316	318	332	323	322	340	335	347	338	340	339
White																		
5	155	151	146	159	156	159	224	216	202	220	214	213	249	252	235	244	237	234
10	167	165	162	172	170	171	235	229	215	234	228	227	260	263	247	256	248	247
25	188	189	186	194	192	192	253	248	237	256	250	249	277	279	269	275	269	266
50	211	216	211	217	215	217	273	270	262	280	273	272	298	297	294	295	291	289
75	233	242	237	240	238	240	291	290	287	304	295	294	316	314	317	314	313	311
90	255	265	260	261	258	260	306	309	308	324	315	314	333	329	338	331	333	331
95	266	278	272	273	270	272	315	319	322	335	327	326	343	338	350	341	344	343
Black																		
5	124	109	105	117	114	122	201	194	182	200	190	184	222	232	213	216	214	213
10	135	122	120	130	127	135	212	205	193	212	201	197	232	243	225	226	226	224
25	160	148	144	152	150	155	228	226	216	232	222	218	252	258	245	245	246	245
50	182	173	172	176	173	182	248	247	240	257	245	243	270	276	268	264	267	267
75	205	200	198	198	196	206	265	266	263	282	268	265	290	294	291	283	289	289
90	228	224	223	218	217	229	281	285	284	306	288	285	309	309	311	300	309	310
95	240	238	239	229	231	242	292	296	297	319	300	297	318	318	324	309	320	324
Hispanic																		
5	130	125	120	132	131	126	197	199	187	203	192	187	208	228	217	220	212	213
10	141	139	135	144	143	141	207	210	199	219	204	202	216	236	232	234	224	224
25	162	163	159	166	164	166	225	230	220	242	227	223	238	256	253	252	250	245
50	188	191	184	189	188	192	247	251	246	265	252	246	260	274	275	275	273	268
75	214	218	210	213	213	216	268	271	270	288	276	270	281	294	301	294	294	291
90	234	241	234	234	234	237	286	290	292	310	298	291	297	309	324	314	313	312
95	247	256	248	247	245	250	298	301	305	324	308	303	306	316	338	324	327	326

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 18-1 Explanations of levels of mathematics proficiency

Level 150:	**Simple arithmetic facts** Students at this level know some basic addition and subtraction facts, and most can add two-digit numbers without regrouping. They recognize simple situations in which addition and subtraction apply. They also are developing rudimentary classification skills.
Level 200:	**Beginning skills and understanding** Students at this level have considerable understanding of two-digit numbers. The can add two-digit numbers, but are still developing an ability to regroup in subtraction. They know some basic multiplication and division facts, recognize relations among coins, can read information from charts and graphs, and can use simple measurement instruments. They are developing some reasoning skills.
Level 250:	**Numerical operations and beginning problem solving** Students at this level have an initial understanding of the four basic operations. They are able to apply whole number addition and subtraction skills to one-step word problems and money situations. In multiplication, they can find the product of a two-digit and a one-digit number. They can also compare information from graphs and charts, and are developing an ability to analyze simple logical relations.
Level 300:	**Moderately complex procedures and reasoning** Students at this level are developing an understanding of number systems. They can compute with decimals, simple fractions, and commonly encountered percents. They can identify geometric figures, measure lengths and angles, and calculate areas of rectangles. These students are also able to interpret simple inequalities, evaluate formulas, and solve simple linear equations. They can find averages, make decisions on information drawn from graphs, and use logical reasoning to solve problems. They are developing the skills to operate with signed numbers, exponents, and square roots.
Level 350:	**Multi-step problem solving and algebra** Students at this level can apply a range of reasoning skills to solve multi-step problems. They can solve routine problems involving fractions and percents, recognize properties of basic geometric figures, and work with exponents and square roots. They can solve a variety of two-step problems using variables, identify equivalent algebraic expressions, and solve linear equations and inequalities. They are developing an understanding of functions and coordinate systems.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 18-2 Average mathematics scale scores, by grade: 1990–96

Grade	1990	1992	1996
4	213	[1]220	[1,2]224
8	263	[1]268	[1,2]272
12	294	[1]299	[1,2]304

[1] Statistically significant difference from 1990.

[2] Statistically significant difference from 1992.

NOTE: See the supplemental note to *Indicator 16* for further discussion of the NAEP assessments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table 18-3 Average mathematics scale scores of public school fourth- and eighth-graders, and change in scores from 1992 and from 1990, by grade and state: 1996

	Grade 4		Grade 8		
State or jurisdiction	Average scale score	Change from 1992 average scale score	Average scale score	Change from 1992 average scale score	Change from 1990 average scale score
National average	**222**	**[2]4**	**271**	**5**	**8**
Alabama	212	3	257	4	4
Alaska[1]	224	—	278	—	—
Arizona[1]	218	2	268	3	[3]8
Arkansas	216	[2]6	262	[2]5	[3]5
California	209	1	263	2	[3]6
Colorado	226	[2]5	276	3	[3]8
Connecticut	232	[2]5	280	[2]6	[3]10
Delaware	215	[2]-3	267	[2]4	[3]6
District of Columbia	187	[2]-5	233	-2	1
Florida	216	2	264	4	[3]8
Georgia	215	0	262	3	4
Hawaii	215	1	262	[2]5	[3]11
Indiana	229	[2]8	276	[2]5	[3]8
Iowa[1]	229	-1	284	1	[3]6
Kentucky	220	[2]5	267	[2]4	[3]9
Louisiana	209	[2]5	252	2	[3]6
Maine	232	1	284	[2]5	—
Maryland	221	3	270	5	[3]9
Massachusetts	229	2	278	5	—
Michigan[1]	226	[2]6	277	[2]10	[3]12
Minnesota	232	[2]4	284	2	[3]9
Mississippi	208	[2]7	250	4	—
Missouri	225	3	273	2	—
Montana[1]	228	—	283	—	3
Nebraska	228	2	283	[2]5	[3]7
Nevada[1]	218	—	—	—	—
New Jersey[1]	227	0	—	—	—
New Mexico	214	1	262	2	[3]6
New York[1]	223	[2]4	270	4	[3]9
North Carolina	224	[2]11	268	[2]9	[3]17
North Dakota	231	2	284	1	3
Oregon	223	—	276	—	[3]5
Pennsylvania[1]	226	2	—	—	—
Rhode Island	220	[2]5	269	[2]3	[3]9

Table 18-3 Average mathematics scale scores of public school fourth- and eighth-graders, and change in scores from 1992 and from 1990, by grade and state: 1996—Continued

	Grade 4		Grade 8		
State or jurisdiction	Average scale score	Change from 1992 average scale score	Average scale score	Change from 1992 average scale score	Change from 1990 average scale score
South Carolina[1]	213	1	261	0	—
Tennessee	219	[2]8	263	4	—
Texas	229	[2]11	270	[2]6	[3]12
Utah	227	2	277	2	—
Vermont[1]	225	—	279	—	—
Virginia	223	2	270	2	[3]5
Washington	225	—	276	—	—
West Virginia	223	[2]8	265	[2]6	[3]9
Wisconsin	231	3	283	5	[3]8
Wyoming	223	-2	275	0	[3]3

— Not available. State did not participate in the assessment for one or more years.

[1] State did not satisfy one or more of the guidelines for school participation rates in 1996.

[2] Change between 1992 and 1996 is statistically significant.

[3] Change between 1990 and 1996 is statistically significant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table 18-4 Percentage of students scoring at or above five levels of mathematics proficiency: 1978–96

		Year						
Proficiency levels	Age	1978	1982	1986	1990	1992	1994	1996
Level 150:	9	[1]97	[1]97	[1,2]98	[2]99	[2]99	[2]99	[2]99
Simple arithmetic	13	100	100	100	100	100	100	100
facts	17	100	100	100	100	100	100	100
Level 200:	9	[1]70	[1]71	[1]74	[2]82	[2]81	[2]82	[2]82
Beginning skills and	13	[1]95	[2]98	[2]99	[2]99	[2]99	[2]99	[2]99
understandings	17	100	100	100	100	100	100	100
Level 250:	9	[1]20	[1]19	[1]21	[2]28	[2]28	[2]30	[2]30
Numerical operations and	13	[1]65	[1,2]71	[2]73	[2]75	[2]78	[2]78	[2]79
beginning problem solving	17	[1]92	[1]93	[2]96	[2]96	[2]97	[2]97	[2]97
Level 300:	9	[2]1	[2]1	1	1	1	1	[2]2
Moderately complex	13	18	17	[1]16	17	19	21	21
procedures and reasoning	17	[1]52	[1]49	[1]52	56	[2]59	[2]59	[2]60
Level 350:	9	0	0	0	0	0	0	0
Multi-step problem	13	1	1	[2]0	[2]0	0	1	1
solving and algebra	17	7	[2]6	7	7	7	7	7

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1978.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 18-5 Percentile distribution of mathematics proficiency scores, by age, and race/ethnicity: 1978–96

Per-	Age 9							Age 13							Age 17						
centile	1978	1982	1986	1990	1992	1994	1996	1978	1982	1986	1990	1992	1994	1996	1978	1982	1986	1990	1992	1994	1996
All students																					
5	157	159	163	173	172	174	174	198	212	218	218	221	220	221	241	245	252	253	256	256	256
10	171	173	177	186	185	187	187	213	225	230	230	233	233	233	254	256	263	264	267	267	267
25	195	196	199	208	208	209	208	238	246	248	250	253	253	254	276	276	281	283	286	286	286
50	220	220	223	231	231	233	232	265	270	269	271	274	276	275	301	299	301	305	308	306	308
75	244	243	246	252	253	255	254	291	292	290	292	294	297	296	325	322	323	327	328	327	329
90	264	263	264	271	271	272	274	313	311	309	310	312	315	314	345	341	343	345	345	346	346
95	276	274	276	282	282	283	285	327	322	321	320	323	326	325	356	351	354	356	355	356	355
White																					
5	166	168	171	182	182	182	182	212	223	226	228	231	231	233	252	253	261	260	264	265	266
10	179	181	184	194	194	195	195	226	234	236	239	242	243	244	263	264	270	270	274	275	276
25	201	202	205	215	215	217	215	248	254	254	257	260	262	262	284	282	287	289	293	293	294
50	225	225	228	236	236	238	238	272	275	273	277	279	282	281	307	304	307	310	313	312	315
75	248	247	250	256	256	259	260	296	296	293	296	298	301	300	329	325	328	330	332	332	333
90	267	265	267	274	274	275	278	317	314	312	313	315	318	318	347	343	346	347	348	349	349
95	278	276	278	285	284	286	289	330	325	323	323	325	329	328	358	353	356	357	357	359	358
Black																					
5	134	137	146	156	155	160	158	170	189	202	202	200	202	204	217	225	237	245	238	241	241
10	147	150	158	167	166	171	171	184	200	213	212	212	213	214	228	234	244	254	249	251	251
25	169	172	180	186	186	191	190	206	219	231	230	231	231	232	246	251	260	269	267	268	268
50	193	197	203	208	209	213	213	229	241	249	249	251	251	253	268	271	279	287	287	286	286
75	216	218	224	231	230	234	234	254	261	267	268	271	271	272	290	291	296	307	304	303	306
90	236	237	241	249	249	252	250	276	280	284	285	286	292	289	310	311	312	326	321	317	322
95	248	248	251	259	259	262	260	288	291	296	296	297	304	300	321	321	325	338	331	326	333
Hispanic																					
5	144	148	155	162	159	159	164	180	202	206	206	212	209	204	224	232	236	229	248	244	243
10	156	161	164	173	169	170	173	192	214	216	216	224	219	217	234	241	248	242	258	254	254
25	179	181	185	193	190	190	192	214	231	236	234	241	238	236	253	256	265	264	273	271	272
50	204	205	206	216	212	211	215	237	252	254	255	259	256	256	275	275	283	282	292	290	293
75	227	226	226	235	234	230	237	262	274	274	275	279	274	277	298	297	301	304	311	311	312
90	250	246	245	252	253	249	256	284	293	292	292	295	293	293	320	315	319	325	328	329	330
95	260	257	254	262	263	259	266	296	304	301	303	304	304	305	332	327	329	336	336	338	341

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 19-1 Explanations of levels of science proficiency

Level 150:	**Knows everyday science facts** Students at this level know some general scientific facts of the type that could be learned from everyday experiences. They can read simple graphs, match the distinguishing characteristics of animals, and predict the operation of familiar apparatus that work according to mechanical principles.
Level 200:	**Understands simple scientific principles** Students at this level are developing some understanding of simple scientific principles, particularly in the life sciences. For example, they exhibit some rudimentary knowledge of the structure and function of plants and animals.
Level 250:	**Applies general scientific information** Students at this level can interpret data from simple tables and make inferences about the outcomes of experimental procedures. They exhibit knowledge and understanding of the life sciences, including a familiarity with some aspects of animal behavior and of ecological relationships. These students also demonstrate some knowledge of basic information from the physical sciences.
Level 300:	**Analyzes scientific procedures and data** Students at this level can evaluate the appropriateness of the design of an experiment. They have detailed scientific knowledge, and the skill to apply their knowledge in interpreting more information from text and graphs. These students also exhibit a growing understanding of principles from the physical sciences.
Level 350:	**Integrates specialized scientific information** Students at this level can infer relationships and draw conclusions using detailed scientific knowledge from the physical sciences, particularly chemistry. They also can apply basic principles of genetics and interpret the societal implications of research in this field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 19-2 Percentage of students scoring at or above five levels of science proficiency: 1977–96

Proficiency level	Age	Year						
		1977	1982	1986	1990	1992	1994	1996
Level 150:	9	[1]94	95	[1,2]96	[2]97	[2]97	[2]97	[2]97
Knows everyday	13	[1]99	[2]100	[2]100	[2]100	[2]100	[2]100	[2]100
science facts	17	100	100	100	100	[2]100	100	100
Level 200:	9	[1]68	[1]71	[1,2]72	[2]76	[2]78	[2]77	[2]76
Understands simple	13	[1]86	[1,2]90	[2]92	[2]92	[2]93	[2]92	[2]92
scientific principles	17	97	96	97	97	98	97	98
Level 250:	9	[1]26	[1]24	[1]28	[2]31	[2]33	[2]34	[2]32
Applies general	13	[1]49	[1]51	[1]53	[1,2]57	[2]61	[2]60	[2]58
scientific information	17	82	[1,2]77	81	81	83	83	84
Level 300:	9	[1]3	2	3	3	3	4	[2]4
Analyzes scientific	13	11	10	9	11	12	12	12
procedures and data	17	[1]42	[1,2]37	[1]41	43	[2]47	[2]48	[2]49
Level 350:	9	0	0	0	0	0	0	0
Integrates specialized	13	1	0	[2]0	0	[2]0	[2]0	0
scientific information	17	9	[1]7	8	9	10	10	[2]11

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1977.

NOTE: See the supplemental note to *Indicator 16* for further discussion of the NAEP assessments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table 19-3 Percentile distribution of science proficiency scores, by age and race/ethnicity: 1977–96

Percentile	Age 9							Age 13							Age 17						
	1977	1982	1986	1990	1992	1994	1996	1977	1982	1986	1990	1992	1994	1996	1977	1982	1986	1990	1992	1994	1996
All students																					
5	144	151	155	160	163	161	160	174	185	189	191	193	191	191	213	203	212	210	218	212	218
10	161	167	170	176	178	177	174	191	200	203	206	209	207	205	231	222	230	229	234	232	235
25	190	194	196	202	204	203	201	218	224	227	230	235	233	230	261	252	260	260	264	265	266
50	222	221	225	230	232	233	231	249	251	252	256	260	259	258	291	285	290	292	296	297	298
75	251	249	253	257	258	260	259	278	277	277	281	284	283	283	320	315	319	323	327	326	327
90	276	272	277	279	281	282	283	302	299	298	302	303	303	304	346	342	344	348	350	350	352
95	291	286	291	292	294	295	298	317	313	310	315	314	314	317	362	357	360	363	364	363	365
White																					
5	163	167	167	177	178	177	172	191	198	204	209	213	212	208	231	223	228	233	234	238	237
10	178	182	181	190	192	191	187	205	211	216	220	226	225	221	246	239	245	249	251	254	253
25	202	204	206	213	215	215	212	229	233	237	241	246	245	243	270	266	271	273	277	280	281
50	230	229	233	238	240	242	240	256	258	259	265	268	267	267	298	294	299	301	306	308	309
75	257	255	259	262	264	266	266	283	282	282	287	289	289	289	325	321	325	329	333	334	335
90	281	278	282	284	285	287	289	307	303	302	307	307	307	309	350	346	349	352	355	356	357
95	295	291	295	296	298	300	303	321	316	314	319	318	318	321	365	361	364	367	368	369	370
Black																					
5	107	124	133	131	138	138	139	144	160	168	170	162	168	168	172	166	189	182	192	186	191
10	123	137	147	145	152	153	153	158	173	180	182	177	180	181	187	181	202	197	207	202	208
25	147	159	170	170	174	175	176	181	194	198	202	199	198	201	212	206	225	220	230	229	232
50	174	188	196	196	201	202	203	207	217	221	226	224	223	225	240	235	252	252	255	258	259
75	203	214	223	224	226	228	228	235	241	244	249	251	247	251	268	263	280	283	282	285	289
90	229	236	246	247	248	252	251	260	262	264	269	272	272	271	293	289	306	314	308	310	315
95	244	246	260	260	260	263	264	275	275	277	283	286	287	286	310	305	323	329	325	322	328
Hispanic																					
5	125	127	134	146	143	139	143	147	166	171	174	180	175	175	194	178	194	189	197	186	197
10	140	142	148	159	157	152	157	161	179	181	185	193	187	187	208	194	209	204	215	199	212
25	164	162	173	181	179	176	181	186	201	202	206	215	207	208	234	219	232	231	242	226	240
50	191	191	200	206	205	200	208	213	226	226	231	238	231	231	262	248	259	260	273	263	271
75	219	216	226	233	230	227	235	240	249	250	256	261	258	256	290	278	286	293	298	296	298
90	246	236	252	253	254	251	255	266	271	270	280	282	277	280	317	302	310	317	323	321	323
95	261	246	265	267	265	264	268	282	285	283	294	292	290	293	331	321	324	330	339	336	339

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1998.

Note to Indicator 20: Data collection and sampling guidelines for the TIMSS

Indicators 3, 20, 37, and *38* all include data from the Third International Mathematics and Science Study (TIMSS), which tested and collected data for more than half a million students at five grade levels, encompassing three separate populations. The indicators in this publication used data from *Population 1* and *Population 2* as defined below:

- *Population 1*: Students enrolled in the two adjacent grades that contained the largest proportion of 9-year-old students at the time of testing (third- and fourth-grade students in most countries).
- *Population 2*: Students enrolled in the two adjacent grades that contained the largest proportion of 13-year-old students at the time of testing (seventh- and eighth-grade students in most countries).
- *Population 3:* Students enrolled in the final year of secondary school, regardless of their type of school or program, so that within the same country students in different grades participated in TIMSS. Across all the countries, students as low as grade 10 and as high as grade 14 participated (in all but one country, 12th-graders constituted part or all of the student sample). General knowledge assessments were administered to a sample of all students and results from these assessments are presented in *Indicator 20*. (Separate assessments in physics and advanced mathematics were given to students who had taken or were taking physics and advanced mathematics, respectively, but those results are not shown here. See *Pursuing Excellence: A Study of Twelfth-Grade Mathematics and Science Achievement in International Context*).

All countries participating in the study were required to administer tests to the students in the two grades at *Population 2*, but could choose whether or not to participate in the tests of other populations. Over forty countries participated in the survey, of which 14 participated in *Populations 1, 2,* and *3*.

Additional countries were either unable to complete the steps necessary for data to appear in the TIMSS report, chose not to release their results in the report, or had their results published in a separate appendix to the report. Data for these countries, therefore, have not been included in this volume.

Table 1. Countries participating in the TIMSS, by population covered

Country	Population 1	Population 2	Population 3
Australia	✓	✓	✓
Austria	✓	✓	✓
Belgium (Fl)		✓	
Belgium (Fr)		✓	
Bulgaria		✓	
Canada	✓	✓	✓
Colombia		✓	
Cyprus	✓	✓	✓
Czech Republic	✓	✓	✓
Denmark		✓	✓
England	✓	✓	
France		✓	✓
Germany		✓	✓
Greece	✓	✓	✓
Hong Kong	✓	✓	
Hungary	✓	✓	✓
Iceland	✓	✓	✓
Iran, Islamic Republic	✓	✓	
Ireland	✓	✓	
Israel	✓	✓	
Italy	✓	✓	✓
Japan	✓	✓	
Korea	✓	✓	
Kuwait	✓	✓	
Latvia	✓	✓	✓
Lithuania		✓	✓
Netherlands	✓	✓	✓
New Zealand	✓	✓	✓
Norway	✓	✓	✓
Portugal	✓	✓	
Romania		✓	
Russian Federation		✓	✓
Scotland	✓	✓	
Singapore	✓	✓	
Slovak Republic		✓	
Slovenia	✓	✓	✓
South Africa		✓	
Spain		✓	✓
Sweden		✓	✓
Switzerland		✓	✓
Thailand	✓	✓	
United States	✓	✓	✓

For all of three *Populations*, participants were required to meet various sampling guidelines. These guidelines, and the extent to which countries met them for *Populations 1* and 2, are described in the following sections. (See *Pursuing Excellence: A Study of Twelfth-Grade Mathematics and Science Achievement in International Context*, Appendix A, for details about *Population 3*).

Population 1: Third- and Fourth-Grade Students

In some situations, where it was not possible to implement testing for the entire International Desired Population (*Population 1*), countries were

Table 2. Countries covering less than 100 percent of the International Desired Population for *Population 1*

	International Desired Population	
Country	Coverage	Note on Coverage
Israel	72%	Hebrew Public Education System only
Latvia	60%	Latvian-speaking schools only

permitted to define a National Desired Population, which excluded some portion of the International Desired Population. For example, Israel and Latvia's populations covered less than 100 percent of the International Desired Population because they needed to define their population according to the structure of school systems.

Countries were also permitted to, within their desired population, define a population that excluded a small percentage (less than 10 percent) of schools or students that would be difficult to test (e.g., very small schools or schools located in a remote area). England was the only country that exceeded the 10 percent level, excluding 12.1 percent of schools from the desired population.

Table 3. Countries that participated in *Population 1* of the TIMSS, by compliance with sampling guidelines

Compliance with Sampling Guidelines	Countries
Countries satisfying guidelines for sample participation rates, grade selection, and sampling procedures	Canada
	Cyprus
	Czech Republic
	Greece
	Hong Kong
	Iceland
	Iran, Islamic Republic
	Ireland
	Japan
	Korea
	New Zealand
	Norway
	Portugal
	Scotland
	Singapore
	United States
Countries not satisfying guidelines for sample participation rates	Australia
	Austria
	England
	Latvia
	Netherlands
Countries not meeting age/grade specifications	Slovenia
Countries with unapproved sampling procedures at the classroom level	Hungary
	Israel
	Kuwait
	Thailand

The TIMSS used a two-stage sample design, in which the first stage involved selecting 150 public and private schools within each country. Random sampling methods were then used to select from each school one mathematics class for each grade level (third and fourth). The required participation rates from the samples were at least 85 percent of both schools and students, or a combined rate of 75 percent.

England and Scotland met sampling guidelines only after including replacement schools for those schools refusing or unable to participate. Australia, Austria, Latvia, and the Netherlands failed to meet sampling participation standards. These countries either did not reach a 50 percent participation rate without the inclusion of replacement schools, or failed to reach the required rate even with the inclusion of replacement schools.

Slovenia chose to test their third- and fourth-grade students even though these were not the two adjacent grade levels with the highest proportion of 9-year-olds. Although this was done in order to increase the similarity of curricula, it resulted in their students being somewhat older than the students from other countries who participated in the study.

Hungary, Israel, Kuwait, and Thailand, for various reasons, had difficulty complying with guidelines for sampling classrooms. For example, Kuwait tested a single grade with relatively few 9-year-olds, Israel had low sampling participation rates, and Thailand had a high percentage of older students.

Population 2: Seventh- and Eighth-Grade Students

As was the case in *Population 1*, in some situations where it was not possible to implement testing for the entire International Desired Population (*Population 2*), countries were permitted to define a National Desired Population, which excluded some

Table 4. Countries covering less than 100 percent of the International Desired Population for *Population 2*

	International Desired Population	
Country	Coverage	Note on Coverage
Germany	0.88	15 of 16 regions
Israel	0.74	Hebrew Public Education System only
Latvia	0.51	Latvian-speaking schools only
Lithuania	0.84	Lithuanian-speaking schools only
Switzerland	0.86	22 of 26 cantons

portion of the International Desired Population. For example, Israel, Latvia, and Lithuania's populations covered less than 100 percent of the International Desired Population because they needed to define their population according to the structure of school systems. In the case of Germany and Switzerland, however, some regions simply did not wish to participate in the study.

Countries were also permitted to, within their desired population, define a population that excluded a small percentage (less than 10 percent) of schools or students that would be difficult to test (e.g., very small schools or schools located in a remote area). England was the only country that exceeded the 10 percent level, excluding 11.3 percent of schools from the desired population.

The TIMSS used a two-stage sample design, in which the first stage involved selecting 150 public and private schools within each country. Random sampling methods were then used to select from each school one mathematics class for each grade level (seventh and eighth). The required participation rates from the samples were at least 85 percent of both schools and students, or a combined rate of 75 percent.

Belgium (Fl), England, Germany, and the United States met sampling guidelines only after including replacement schools for those schools refusing or unable to participate. Australia, Austria, Belgium (Fr), Bulgaria, the Netherlands, and Scotland failed to meet sampling participation standards. These countries either did not reach a 50 percent participation rate without the inclusion of replacement schools, or failed to reach the required rate even with the inclusion of replacement schools.

Table 5. Countries that participated in *Population* 2 of the TIMSS, by compliance with sampling guidelines

Compliance with Sampling Guidelines	Countries
Countries satisfying guidelines for sample participation rates, grade selection, and sampling procedures	Canada Cyprus Czech Republic France Hong Kong Hungary Iceland Iran, Islamic Republic Ireland Japan Korea Latvia Lithuania New Zealand Norway Portugal Russian Federation Singapore Slovak Republic Spain Sweden
Countries not satisfying guidelines for sample participation rates	Australia Austria Belgium (Fr) Bulgaria England Germany Israel Latvia Lithuania Netherlands Scotland Switzerland
Countries not meeting age/grade specifications	Colombia Germany Romania Slovenia
Countries with unapproved sampling procedures at the classroom level	Denmark Greece Israel Kuwait South Africa Thailand

Four countries (Colombia, Germany, Romania, and Slovenia) chose to test their seventh- and eighth-grade students even though these were not the two adjacent grade levels with the highest proportion of 13-year-olds. Although this was done in order to increase the similarity of curricula, it resulted in their students being somewhat older than the students from other countries who participated in the study.

Denmark, Greece, Israel, Kuwait, South Africa, and Thailand, for various reasons, had difficulty complying with guidelines for sampling classrooms. Kuwait tested a single grade with relatively few 13-year-olds, and South Africa and Thailand had low sampling participation rates, contributing to additional difficulties.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study (TIMSS)*, 1996; *Mathematics Achievement in the Primary School Years, Science Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study (TIMSS)*, 1997.

Table 21-1 Percentage distribution of the population scoring at each of five literacy levels, by literacy scale, country, and highest level of educational attainment: 1994

Country and highest level	Prose scale				Document scale				Quantitative scale			
of educational attainment	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Belgium*												
Less than high school	34.0	35.5	25.5	5.0	27.8	33.1	32.9	6.2	30.0	29.0	31.6	9.5
High school degree	10.3	31.3	45.3	13.2	7.8	25.6	47.9	18.7	9.7	24.6	41.9	23.8
Some college, no degree	2.5	15.2	51.4	30.9	2.4	14.4	50.5	32.8	2.6	12.7	43.2	41.5
College degree or more	2.1	10.8	42.6	44.5	1.7	7.9	47.2	43.2	1.0	5.2	35.1	58.7
Canada												
Less than high school	39.4	29.0	26.4	5.2	40.9	32.6	20.3	6.3	39.8	33.3	21.5	5.4
High school degree	8.6	29.2	41.7	20.5	10.3	24.2	39.0	26.5	8.4	29.1	42.9	19.6
Some college, no degree	4.7	21.7	46.0	27.6	4.7	17.8	40.8	36.7	4.2	22.2	46.8	26.9
College degree or more	0.5	10.3	34.7	54.6	2.4	10.8	35.8	51.0	1.1	5.7	31.1	62.2
Germany												
Less than high school	17.5	40.5	33.7	8.3	12.2	37.6	38.1	12.1	9.0	30.6	43.2	17.2
High school degree	8.1	32.6	44.0	15.3	5.1	25.6	44.2	25.1	4.3	20.8	47.9	26.9
Some college, no degree	3.0	16.5	53.0	27.5	4.7	18.3	51.9	25.0	2.4	15.0	56.0	26.7
College degree or more	3.6	17.7	39.7	39.0	1.5	18.8	33.4	46.3	1.9	12.1	32.4	53.7
Ireland*												
Less than high school	37.3	35.7	22.8	4.2	41.6	34.9	20.1	3.3	39.5	31.9	22.2	6.5
High school degree	7.3	29.8	46.3	16.7	10.1	33.3	43.3	13.4	10.8	30.0	39.1	20.1
Some college, no degree	4.6	21.3	49.4	24.6	6.4	24.0	50.3	19.3	8.2	20.7	42.7	28.3
College degree or more	1.2	16.1	39.8	42.9	1.2	19.7	40.9	38.3	1.7	16.5	35.5	46.3
Netherlands												
Less than high school	21.1	42.8	32.1	4.1	20.7	36.3	35.4	7.6	19.9	36.1	35.8	8.2
High school degree	2.6	22.5	55.1	19.9	2.6	19.3	52.2	25.9	2.5	21.2	51.9	24.5
Some college, no degree	—	—	—	—	—	—	—	—	—	—	—	—
College degree or more	1.2	12.1	52.6	34.1	1.6	12.9	50.0	35.4	1.8	10.5	47.2	40.6
New Zealand*												
Less than high school	27.8	36.2	29.2	6.8	32.3	36.9	24.9	6.0	31.3	35.4	26.9	6.5
High school degree	9.5	26.6	41.0	22.8	10.7	27.2	40.9	21.2	11.0	27.4	40.7	21.0
Some college, no degree	7.7	18.0	41.2	33.1	9.6	21.0	41.7	27.6	8.4	22.0	43.3	26.2
College degree or more	6.7	11.0	35.5	46.8	6.7	12.0	37.1	44.2	5.8	10.7	39.0	44.5
Poland												
Less than high school	56.2	30.4	11.9	1.5	58.0	27.5	11.9	2.5	51.8	29.4	15.7	3.1
High school degree	24.5	45.0	26.5	4.1	28.2	37.2	27.2	7.4	20.8	35.8	33.0	10.4
Some college, no degree	13.5	39.0	38.3	9.2	18.8	33.1	34.1	14.1	13.5	30.0	42.8	13.7
College degree or more	11.1	30.6	41.3	17.0	15.8	29.6	33.2	21.4	9.6	25.8	38.2	26.4
Sweden												
Less than high school	15.4	30.7	37.2	16.7	14.3	27.6	36.4	21.7	14.0	26.3	37.2	22.6
High school degree	5.2	21.3	42.7	30.9	4.0	19.0	42.2	34.9	4.8	19.2	41.5	34.5
Some college, no degree	1.2	9.5	42.1	47.2	0.9	11.9	39.4	47.8	1.0	14.0	39.7	45.3
College degree or more	0.9	7.3	33.1	58.8	0.9	8.9	30.1	60.1	1.0	7.2	27.9	63.8

Table 21-1 Percentage distribution of the population scoring at each of five literacy levels, by literacy scale, country, and highest level of educational attainment: 1994—Continued

Country and highest level	Prose scale				Document scale				Quantitative scale			
of educational attainment	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Switzerland (French)												
Less than high school	38.7	44.3	15.8	1.2	36.4	42.3	18.7	2.7	28.6	43.5	24.1	3.8
High school degree	11.4	37.9	42.8	7.9	8.8	32.5	44.2	14.5	5.7	25.1	49.6	19.5
Some college, no degree	6.0	29.1	53.0	12.0	3.0	20.7	49.4	26.9	3.0	13.8	52.7	30.5
College degree or more	4.7	12.2	51.5	31.5	4.3	8.3	42.8	44.6	4.3	8.4	48.1	39.1
Switzerland (German)												
Less than high school	41.4	37.1	18.7	2.8	42.9	30.4	18.8	7.8	30.1	36.6	25.1	8.2
High school degree	11.4	37.4	41.2	10.0	9.6	30.3	41.5	18.6	6.7	26.3	47.0	20.1
Some college, no degree	5.9	32.2	51.1	10.7	4.3	23.0	50.3	22.4	2.3	15.6	54.5	27.6
College degree or more	6.0	21.9	46.4	25.7	6.0	15.7	41.7	36.6	5.4	15.3	42.3	37.0
United Kingdom*												
Less than high school	29.9	35.0	27.2	7.9	31.9	31.7	26.2	10.3	32.5	31.8	26.6	9.1
High school degree	13.4	27.9	39.4	19.3	13.7	26.2	35.5	24.6	13.3	26.4	37.4	22.9
Some college, no degree	4.4	23.0	46.8	25.8	7.2	22.7	41.8	28.4	7.2	23.6	40.3	29.0
College degree or more	2.9	12.4	40.0	44.7	3.6	11.2	36.8	48.4	3.5	10.2	32.3	54.0
United States												
Less than high school	57.2	24.4	15.5	2.9	60.5	22.8	13.5	3.2	55.3	25.9	15.0	3.9
High school degree	16.6	32.1	36.9	14.4	20.1	32.1	33.9	13.9	18.0	30.9	35.4	15.7
Some college, no degree	10.5	22.2	39.9	27.3	13.1	23.8	38.5	24.7	10.4	21.0	41.6	27.1
College degree or more	5.1	11.0	34.5	49.5	6.6	13.4	37.2	42.8	5.3	10.7	31.2	52.8

— Not available

* Data are for 1996

NOTE: Some data are revised from previously published figures due to differences in the calculations of proficiency scores. Some data are unavailable because the category was not included in the survey question. Details may not add to 100.0 due to rounding.

SOURCE: Organization for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994 and 1996.

Note to Indicator 21: Definition of literacy scales and levels

The International Adult Literacy Survey (IALS) was a collaborative effort among seven governments and three intergovernmental organizations. This survey reports the results of a wide-ranging test of literacy skills given to a large sample of adults (ranging from 1,500 to 1,800 per country) in Europe and North America in fall 1994. Each country participating in the survey was required to draw a probability sample that represented the civilian, non-institutionalized population ages 16–65. In six countries, the survey was conducted in the national language; in Canada, respondents were given a choice of taking the survey in either English or French; in Switzerland, respondents in French-speaking and German-speaking cantons responded to survey questions in their respective languages.

As literacy cannot be narrowed down to a single skill suited for dealing with all types of text, nor defined as an infinite set of skills, the IALS defined literacy in terms of three scales, each encompassing a common set of skills relevant for diverse tasks:

Prose literacy: The knowledge and skills required to understand and use information from texts, including editorials, news stories, poems, and fiction;

Document literacy: The knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables, and graphics; and

Quantitative literacy: The knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a checkbook, figuring a tip, completing an order form, or determining the amount of interest on a loan from an advertisement.

In each of these three scales, rather than expressing a threshold for achieving literacy, a scale from 0–500 was constructed, upon which tasks of varying difficulty were placed. These scales were developed through the item response theory (IRT) scaling procedures. First, the difficulty of tasks was ranked on a scale according to how well respondents actually performed. Then, each scale was divided into five levels, reflecting the empirically determined progression of information-processing skills and strategies. Next, individuals were assigned scores between 0 and 500 according to how well they performed on a variety of tasks at different levels. Finally, the percentage of readers falling into each skill level was calculated.

A person's ability in each literacy scale can be expressed by a score, defined as the point at which he or she has an 80 percent chance of successfully performing a given task. If a person scores at level 2, it means that this individual has an 80 percent chance of successfully performing level 2 tasks and a greater than 80 percent chance of performing level 1 tasks. It does not mean, however, that individuals with low proficiency cannot succeed at tasks that are rated at higher skill levels—only that the probability of their success is relatively low. Below is a description of the three literacy scales and the tasks required at each proficiency level:

Prose literacy includes text from newspapers, magazines, and brochures accompanied by one or more questions or directives asking the reader to perform specific tasks. These tasks represent three major aspects of information processing: locating, integrating, and generating. Locating tasks require the reader to find information in the text based on conditions or features specified in the question or directive. Integrating tasks ask the reader to pull together two or more pieces of information in the text. Generating tasks ask the reader to produce a written response by processing information from the text, making text-based references, and drawing on background knowledge.

Prose Level 1 (Difficulty values 0–225). Most of the tasks at this level require the reader to locate and match a single piece of information in the text that is identical to or synonymous with the information given in the directive. If a plausible incorrect answer is present in the text, it tends not to be near the correct information.

Prose Level 2 (*Difficulty values 226–275*). Tasks at this level tend to require the reader to locate one or more pieces of information in the text; however, several distracters may be present and the reader may need to make low-level inferences. Tasks at this level also begin to ask readers to integrate two or more pieces of information, or to compare and contrast information.

Prose Level 3 (*Difficulty values 276–325*). Tasks at this level tend to direct readers to search the text to match information, requiring the reader to make low-level inferences or to locate text that meets specified conditions. Sometimes the reader is required to identify several pieces of information that are located in different sentences or paragraphs rather than search for information located in a single sentence. Readers may also be asked to integrate or to compare and contrast information across paragraphs or sections of text.

Prose Level 4 (Difficulty values 326–375). These tasks require readers to perform multiple-feature matching or to provide several responses where the requested information must be identified through text-based inferences. Tasks at this level may also require the reader to integrate or contrast pieces of information that are sometimes presented in relatively lengthy texts. Typically, these texts contain more distracting information, and the information that is requested is more abstract.

Prose Level 5 (Difficulty values 376–500). Some tasks at this level require the reader to search for information in dense text that contains a number of plausible distracters. Some tasks require readers to make high-level inferences or use specialized knowledge.

Document literacy involves using materials such as tables, schedules, charts, graphs, maps, and forms. Questions or directives associated with the various document tasks are categorized into four basic types: locating, cycling, integrating, and generating. Locating, integrating, and generating refer to the same skills as those in prose literacy. Cycling tasks require the reader to locate and match one or more features of information, but differ from locating tasks in that they require the reader to engage in a series of feature matches to satisfy conditions given in the question.

Document Level 1 (Difficulty values 0–225). Most of the tasks at this level require the reader to locate a piece of information based on a literal match. Distracting information, if present, is typically located away from the correct answer. Some tasks may direct the reader to enter personal information onto a form.

Document Level 2 (Difficulty values 226–275). Document tasks at this level are more varied. While some still require the reader to match a single feature, more distracting information may be present, and the match may require a low-level inference. Some tasks at this level may require the reader to enter information onto a form or to cycle through information in a document.

Document Level 3 (Difficulty values 276–325). Tasks at this level appear to be the most varied. Some require the reader to make identical or synonymous matches; however, these matches usually require the reader to take conditional information into account or to match multiple features of information.

Document Level 4 (Difficulty values 326–375). Tasks at this level, like those in the previous levels, ask the reader to match multiple features of information, to cycle through documents, and to integrate information; frequently, these tasks require the reader to make higher order inferences to arrive at the correct answer. Sometimes the reader must take conditional information into account.

Document Level 5 (Difficulty values 376–500). Tasks at this level require the reader to search through complex displays of information that contain multiple distracters, make high-level inferences, process conditional information, or use specialized knowledge.

Quantitative literacy involves using numbers and arithmetic operations to complete a task. These tasks require the reader to locate and extract numbers from different types of documents that contain similar but irrelevant information, infer numbers from printed directions, or calculate numbers using multiple operations.

Quantitative Level 1 (Difficulty values 0–225). Although no quantitative tasks used in the IALS fall below the score of 225, experience suggests that such tasks would require the reader to perform a single, relatively simple operation (usually addition) for which either the numbers are already entered into the given document and the operation is stipulated, or the numbers are provided and the operation does not require the reader to borrow.

Quantitative Level 2 (Difficulty values 226–275). Tasks at this level typically require readers to perform a single arithmetic operation (frequently addition or subtraction) using numbers that are easily located in the text or document. The operation to be performed may be easily inferred from the wording of the question or the format of the material (for example, a bank deposit form or an order form).

Quantitative Level 3 (Difficulty values 276–325). Tasks at this level typically require the reader to perform a single operation. However, the operations are more varied—some multiplication and division tasks are found at this level. Sometimes two or more numbers are needed to solve the problem, and the numbers are frequently embedded in more complex displays. While semantic relation terms such as "how many" or "calculate the difference" are often used, some of the tasks require the reader to make higher order inferences to determine the appropriate operation.

Quantitative Level 4 (Difficulty values 326–375). With one exception, the tasks at this level require the reader to perform a single arithmetic operation in which the quantities or the operations are not easily determined. That is, for most of the tasks at this level, the question or directive does not provide a semantic relation term such as "how many" or "calculate the difference" to help the reader.

Quantitative Level 5 (Difficulty values 376–500). Tasks at this level require readers to perform multiple operations sequentially; the reader must pull out the features of the problem from the material provided or rely on background knowledge to determine the quantities or operations needed.

SOURCE: Organization for Economic Co-operation and Development and Statistics Canada, *Literacy, Economy and Society, Results of the International Adult Literacy Survey*, 1995.

Table 22-1 Percentage of 25- to 29-year-olds who completed high school, by race/ethnicity and sex: March 1971–97

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	77.7	79.1	76.5	81.7	83.0	80.5	58.8	56.7	60.5	48.3	51.3	45.7
1972	79.8	80.5	79.2	83.4	84.1	82.7	64.1	61.7	66.0	47.6	47.1	47.9
1973	80.2	80.6	79.8	84.0	84.2	83.9	64.1	63.2	64.9	52.3	54.2	50.6
1974	81.9	83.1	80.8	85.5	86.0	85.0	68.4	71.5	65.8	54.1	55.9	52.5
1975	83.1	84.5	81.7	86.6	88.0	85.2	71.1	72.3	70.1	53.1	52.2	53.9
1976	84.7	86.0	83.5	87.7	89.0	86.4	74.0	72.8	74.9	58.1	57.6	58.4
1977	85.4	86.6	84.2	88.6	89.2	88.0	74.5	77.5	72.0	58.0	61.9	54.6
1978	85.3	86.0	84.6	88.5	88.8	88.2	77.4	78.7	76.3	56.5	58.5	54.6
1979	85.6	86.3	84.9	89.2	89.8	88.5	74.7	74.0	75.3	57.1	55.5	58.6
1980	85.4	85.4	85.5	89.2	89.1	89.2	76.7	74.8	78.3	57.9	57.0	58.8
1981	86.3	86.5	86.1	89.8	89.7	89.9	77.6	78.8	76.6	59.8	59.1	60.4
1982	86.2	86.3	86.1	89.1	89.1	89.1	81.0	80.4	81.5	61.0	60.6	61.2
1983	86.0	86.0	86.0	89.3	89.3	89.3	79.5	79.0	79.9	58.4	57.8	58.9
1984	85.9	85.6	86.3	89.4	89.4	89.4	79.1	75.9	81.7	58.6	56.7	60.1
1985	86.2	85.9	86.4	89.5	89.2	89.9	80.5	80.6	80.5	61.0	58.6	63.1
1986	86.1	85.9	86.4	89.6	88.7	90.4	83.5	86.4	81.0	59.1	58.2	60.0
1987	86.0	85.5	86.4	89.4	88.9	90.0	83.5	84.5	82.6	59.8	58.6	61.0
1988	85.9	84.7	87.1	89.7	88.4	90.9	80.9	80.9	80.9	62.3	59.9	64.8
1989	85.5	84.4	86.5	89.3	88.2	90.4	82.3	80.5	83.8	61.0	61.0	61.1
1990	85.7	84.4	87.0	90.1	88.6	91.6	81.8	81.4	82.0	58.2	56.6	59.9
1991	85.4	84.9	85.8	89.8	89.2	90.5	81.8	83.6	80.1	56.7	56.4	57.2
High school diploma or equivalency certificate												
1992	86.3	86.1	86.5	90.6	90.3	91.1	80.9	82.7	79.3	60.9	61.1	60.6
1993	86.7	86.0	87.4	91.2	90.7	91.8	82.7	84.8	80.8	60.9	58.2	63.9
1994	86.1	84.5	87.6	91.1	90.0	92.3	84.1	82.8	85.3	60.3	58.0	63.0
1995	86.9	86.3	87.4	92.5	92.0	93.0	86.8	88.4	85.3	57.2	55.7	58.7
1996	87.3	86.5	88.1	92.6	92.0	93.1	86.0	87.9	84.5	61.1	59.7	62.9
1997	87.4	85.8	88.9	92.9	91.7	94.0	86.9	85.8	87.8	61.8	59.2	64.8

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The category "high school diploma or equivalency certificate" includes those who have a high school diploma or an equivalency certificate. See the supplemental note to this indicator for further discussion. Included in total but not shown separately are other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys, various years.

Table 22-2 Percentage of 25- to 29-year-old high school completers with 1 or more years of college, by race/ethnicity and sex: March 1971–97

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	43.6	48.7	38.4	44.9	50.2	39.5	30.9	29.0	32.2	30.6	38.3	22.8
1972	45.1	50.7	39.5	46.3	52.3	40.2	33.3	31.7	34.6	32.1	37.2	28.3
1973	45.3	51.4	39.4	46.6	53.0	40.2	33.5	33.5	33.5	31.6	39.4	24.5
1974	48.9	53.8	44.1	50.4	55.6	45.2	35.4	36.9	34.1	39.2	44.1	34.5
1975	50.1	56.0	44.1	51.2	57.3	44.9	38.7	41.0	36.8	41.1	50.4	32.6
1976	52.1	58.2	46.0	53.8	60.1	47.4	37.2	40.5	34.7	36.3	42.3	31.2
1977	53.2	58.0	48.5	54.8	59.9	49.7	41.7	44.2	39.6	41.1	42.6	39.5
1978	54.4	59.3	49.6	55.9	61.4	50.3	44.9	45.2	44.4	43.6	47.2	40.1
1979	54.1	57.7	50.6	55.7	59.4	51.9	41.7	40.7	42.5	44.0	50.7	38.0
1980	52.3	55.8	49.0	53.8	57.3	50.3	42.3	43.6	41.3	39.9	45.5	34.7
1981	50.1	52.7	47.5	51.2	54.1	48.3	42.5	43.0	42.2	39.6	41.7	37.7
1982	49.9	51.5	48.3	50.7	52.2	49.1	45.8	47.4	44.6	39.6	40.6	38.7
1983	50.6	52.1	49.0	51.6	53.4	49.7	41.6	42.0	41.2	42.9	41.1	44.6
1984	50.1	50.9	49.3	51.0	51.7	50.3	41.6	41.6	41.7	45.6	47.5	44.0
1985	50.8	51.5	50.1	51.8	52.5	51.2	42.7	42.4	42.9	44.2	45.9	42.9
1986	51.0	51.4	50.8	52.3	52.8	51.8	43.4	41.5	45.2	42.9	42.8	43.0
1987	50.7	50.4	51.0	51.4	51.5	51.4	43.0	38.4	47.0	44.6	46.3	43.1
1988	50.8	51.6	50.1	51.8	52.4	51.2	41.2	42.9	39.7	44.9	44.3	45.6
1989	51.3	52.0	50.5	52.8	53.4	52.2	42.1	42.2	41.9	44.3	44.8	43.9
1990	52.0	51.8	52.1	53.6	53.4	53.8	44.1	43.0	45.0	40.1	40.4	39.8
1991	53.1	52.3	53.8	54.9	54.7	55.1	43.2	38.3	47.7	42.2	40.9	43.4
Some college												
1992	56.7	56.0	57.4	58.8	58.3	59.2	44.7	42.3	46.9	46.8	44.5	49.6
1993	58.9	57.6	60.1	61.0	60.3	61.6	48.4	43.6	52.5	48.8	46.1	51.9
1994	60.5	58.9	62.0	62.7	61.0	64.3	49.6	48.7	50.3	51.5	48.3	55.0
1995	62.2	60.6	63.9	64.6	62.6	66.7	52.0	51.2	52.5	50.3	48.0	52.7
1996	64.7	63.1	66.3	67.0	65.5	68.4	55.9	54.5	57.1	50.9	47.0	55.6
1997	65.4	64.0	66.8	68.2	66.9	69.5	53.7	50.2	56.5	53.9	51.9	56.1

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The category "some college" includes those with an associate degree or vocational certificate. See the supplemental note to this indicator for further discussion. Included in total but not shown separately are other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 22-3 Percentage of 25- to 29-year-old high school completers with 4 or more years of college, by race/ethnicity and sex: March 1971–97

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	22.0	25.8	18.1	23.1	27.0	19.1	11.5	12.1	10.9	10.5	15.4	5.8
1972	23.7	27.3	20.2	24.9	28.6	21.1	13.1	11.6	14.3	7.8	9.5	6.4
1973	23.6	26.8	20.5	24.8	28.3	21.3	12.7	11.3	13.8	10.8	12.4	9.7
1974	25.3	28.7	21.8	27.2	31.1	23.2	11.5	12.3	11.0	10.1	8.9	11.2
1975	26.3	29.7	22.9	27.5	31.1	23.7	14.7	15.3	14.2	16.6	19.7	13.4
1976	28.0	32.0	24.1	29.3	33.5	25.0	17.6	16.5	18.6	12.7	17.9	8.2
1977	28.1	31.2	25.1	29.8	33.4	26.3	16.9	16.5	17.3	11.5	11.3	11.7
1978	27.3	30.2	24.4	28.9	32.6	25.3	15.2	13.6	16.5	17.1	16.4	17.9
1979	27.0	29.9	24.2	28.6	31.6	25.5	16.6	17.8	15.7	12.9	14.2	11.4
1980	26.3	28.1	24.5	28.0	30.1	26.0	15.0	14.0	15.8	13.2	15.0	11.8
1981	24.7	26.6	22.8	26.3	28.4	24.2	14.9	15.4	14.5	12.5	14.4	10.9
1982	25.2	26.9	23.4	26.7	28.8	24.6	15.6	14.6	16.4	15.9	17.8	14.2
1983	26.2	27.8	24.6	27.4	29.4	25.4	16.2	16.5	15.9	17.8	16.8	18.8
1984	25.5	27.1	24.0	27.0	28.5	25.4	14.8	17.1	13.0	18.1	17.0	19.2
1985	25.7	26.9	24.6	27.3	28.6	26.0	14.4	12.9	15.6	18.2	18.6	17.7
1986	26.0	26.7	25.3	28.1	29.1	27.1	14.2	11.9	16.3	15.3	15.4	15.2
1987	25.6	26.1	25.2	27.6	28.0	27.1	13.8	14.0	13.6	14.5	15.7	13.4
1988	26.4	27.6	25.2	28.0	29.1	26.9	14.8	15.3	14.4	18.1	19.8	16.3
1989	27.3	28.3	26.5	29.5	30.5	28.5	15.4	15.0	15.6	16.5	15.7	17.2
1990	27.1	28.0	26.2	29.3	30.0	28.6	16.4	18.6	14.5	14.0	12.9	15.2
1991	27.2	27.0	27.3	29.7	29.7	29.8	13.4	13.7	13.1	16.3	14.4	18.1
Bachelor's degree or higher												
1992	27.3	26.9	27.8	30.0	29.5	30.4	13.7	14.2	13.2	15.6	14.3	17.0
1993	27.3	27.2	27.4	29.8	30.0	29.5	16.1	14.8	17.2	13.6	12.1	15.3
1994	27.0	26.6	27.4	29.7	29.8	29.6	16.2	14.0	17.9	13.3	11.3	15.5
1995	28.4	28.4	28.5	31.2	30.9	31.4	17.8	19.7	16.1	15.5	14.0	17.1
1996	31.1	30.2	32.0	34.1	33.6	34.7	17.0	13.9	19.6	16.4	17.1	15.6
1997	31.8	30.7	32.9	35.2	34.1	36.2	16.4	13.7	18.5	17.8	16.1	19.6

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The category "bachelor's degree or higher" includes those with an advanced degree. See the supplemental note to this indicator for further discussion. Included in total but not shown separately are other racial/ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Note to Indicator 22: Educational attainment

The Current Population Survey (CPS) questions on educational attainment, which were used in the analyses for *Indicators 22, 31, 32,* and others, were changed in 1992. Before 1992, the educational attainment questions were 1) "What is the highest grade or year of regular school...has ever attended?" and 2) "Did...complete the grade?" There were 19 response categories for grades 1–8, first through fourth year of high school, and first through sixth year of college.

For example, if respondents attended grade 12 but did not complete it, it was assumed that they had completed grade 11. If the highest grade respondents had completed was grade 9, 10, or 11, they were classified as high school dropouts. If respondents had completed grade 12 or more, they were considered to have completed high school. If they had completed 4 or more years of college, they were considered to have completed college.

Beginning in 1992, the two questions on educational attainment were changed to a single question: "What is the highest level of school...has completed or the highest degree...has received"? In the new response categories, several of the lower education levels were collapsed into a single summary category such as "1st, 2nd, 3rd, or 4th grades." At the high school level, a new category, "12th grade, no diploma," was added. The categories for high school completion and beyond were changed as follows:

- High school graduate
- High school diploma or equivalent (e.g., GED)
- Some college but no degree
- Associate degree in college, academic program
- Associate degree in college, occupational or vocational program
- Bachelor's degree (e.g., B.A., A.B., B.S.)
- Master's degree (e.g., M.A., M.S., M.Eng., M.Ed., M.S.W., M.B.A.)
- Professional school degree (e.g., M.D., D.D.S., D.V.M., L.L.B., J.D.)
- Doctor's degree (e.g., Ph.D., Ed.D.)

The new question puts more emphasis on credentials received beginning at the high school level and less emphasis on the last grade level attended or completed in college if that attendance did not lead to a credential.

This change created some uncertainty about the comparability of measures, such as high school completion rates and college completion rates over time. Below is a discussion of the possible effects the new question may have on high school and college completion rates.

High school completion: The earlier educational attainment question did not explicitly address high school equivalency certificates. Therefore, it is possible that an individual who attended grade 10, dropped out without completing that grade, and later took the GED test and received a high school equivalency credential would not have been counted as completing high school. The new question, however, explicitly treats these individuals as having completed high school. Since 1988, an additional question has been added to the October CPS to explicitly ask respondents whether they had taken the GED. The vast majority of those who responded "yes" were classified as high school completers using the educational attainment question.

The earlier educational attainment question treated individuals who completed grade 12 as high school completers. However, the new question added a new response category called "12th grade, no diploma," and these respondents were not treated as having completed high school—historically, the number of individuals in this category has been very small. In summary, it appears that the question change has had minor effects on measured high school completion rates.

College completion: With the increasing prevalence of individuals taking more than 4 years to earn a bachelor's degree, some researchers are concerned that the college completion rate based on the category "4th year or higher of college completed" would overstate the bachelor's degree (or higher) completion rate. However, the college completion rates among those ages 25–29 in 1992 and 1993 using the new CPS question were very similar to the completion rates for those in 1990 and 1991 using the old questions. In summary, it appears that the question change has had very little effect on measured college completion rates.

Some college: With the new question, someone who attends college for only a few months would respond "some college," but with the old question they would have responded "attended first year of college and did not complete it." In the past, the calculation of the percentage of the population with 1–3 years of college excluded these individuals. With the new question, the information to exclude them is not available, and those respondents with only a few months of college are included in the "some college" category. In principle, the percentage of individuals with "some college" or an associate degree would be expected to be larger than the percentage with 1–3 years of college. Therefore, it would not be accurate to make comparisons between the percentage of those with "some college or an associate degree" using the new question and the percentage of those who completed "1–3 years of college" using the old question.

Indicators 31 and *32* use labor force statistics for the civilian population and annual median earnings for wage and salary workers with different levels of educational attainment. The discussion above suggests that the "high school completer" category based on the new item is larger than before, because it includes all those with an equivalency certificate; however, it is actually smaller than before because it excludes those who completed "12th grade, no diploma" and those with only a few months of college. The latter group is now included in the "1–3 years of college" category.

Nevertheless, the employment and earnings of the respondents who have been added and dropped from each category are similar; therefore, the net effect of the misclassification on employment rates and average annual earnings is likely to be minor. For this reason, it is still useful to compare the employment rates and median annual earnings of recent cohorts with "some college or an associate degree" to older cohorts who completed "1–3 years of college."

For further information on this issue, see Robert Kominski and Paul M. Siegel, "Measuring Education in the Current Population Survey," *Monthly Labor Review*, September 1993.

Table 23-1 Percentage of the population who completed secondary and higher education, by sex, country, and age: 1995

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
			25–64 years old			
Large industrialized countries						
Canada	75.2	17.0	74.9	18.4	75.5	15.6
France	68.4	10.7	72.8	11.8	64.2	9.6
Germany	83.7	12.9	89.6	16.1	77.6	9.6
Italy	34.9	7.9	36.7	8.8	33.2	7.0
Japan[2]	69.7	13.3	70.9	21.5	68.5	5.2
United Kingdom	75.9	12.4	81.4	15.4	70.5	9.4
United States	85.8	25.3	85.3	27.7	86.3	23.0
Other countries						
Australia	52.8	13.8	63.7	14.6	41.9	12.9
Austria	69.5	5.9	77.0	7.4	61.8	4.3
Belgium	53.5	11.0	54.3	13.9	52.6	8.1
Czech Republic	83.4	10.6	90.1	13.1	76.7	8.2
Denmark	65.5	15.0	69.5	15.6	61.3	14.3
Finland	65.4	11.5	64.5	13.1	66.2	9.9
Greece	42.5	11.5	45.0	13.0	40.2	10.1
Ireland	47.2	10.1	43.6	11.3	50.7	8.8
Korea	59.8	18.1	69.5	23.9	49.8	12.2
Luxembourg[3]	29.3	11.4	33.5	14.7	25.0	8.1
Netherlands	61.2	22.0	66.8	24.9	55.5	18.9
New Zealand	59.1	10.2	64.2	12.0	54.0	8.5
Norway	81.2	17.6	81.6	18.2	80.7	17.0
Poland	73.7	9.9	76.3	10.1	71.2	9.8
Portugal	20.1	7.5	19.6	7.9	20.5	7.1
Spain	28.0	11.8	30.3	12.0	25.8	11.6
Sweden	74.7	14.3	73.0	15.0	76.4	13.6
Switzerland	82.2	8.8	88.7	11.9	75.8	5.7
Turkey	23.0	8.4	25.7	9.7	19.5	6.6
			25–34 years old			
Large industrialized countries						
Canada	83.9	19.5	82.4	19.2	85.4	19.7
France	85.5	14.0	87.3	13.7	83.8	14.3
Germany	88.9	12.5	91.0	13.7	86.7	11.3
Italy	49.1	8.2	46.9	7.8	51.2	8.6
Japan[2]	90.6	22.9	89.3	34.2	91.8	11.5
United Kingdom	86.1	14.8	87.5	16.3	84.7	13.1
United States	87.1	25.0	86.1	25.1	88.2	24.9

Table 23-1 Percentage of the population who completed secondary and higher education, by sex, country, and age: 1995—Continued

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
			25–34 years old			
Other countries						
Australia	57.4	14.3	66.8	14.2	48.2	14.5
Austria	80.6	6.5	84.8	7.3	76.0	5.6
Belgium	69.8	14.8	67.4	15.8	72.3	13.7
Czech Republic	91.3	11.8	92.4	13.3	90.1	10.2
Denmark	73.6	15.2	73.6	14.6	73.5	15.8
Finland	82.7	12.8	81.0	13.5	84.6	12.1
Greece	63.9	15.5	62.9	14.0	64.8	16.8
Ireland	63.7	13.0	58.6	13.0	68.9	13.0
Korea	86.5	28.8	89.1	33.6	83.7	23.8
Luxembourg[3]	32.3	11.5	32.8	13.0	31.8	9.9
Netherlands	70.3	24.5	70.0	24.8	70.7	24.2
New Zealand	63.9	11.8	67.6	13.9	60.4	9.8
Norway	88.4	19.9	87.1	17.4	89.8	22.4
Poland	88.2	9.9	87.1	9.1	89.4	10.8
Portugal	31.0	10.0	27.2	8.6	34.6	11.3
Spain	47.2	17.9	45.6	15.2	48.8	20.6
Sweden	88.0	12.6	86.8	12.6	89.2	12.5
Switzerland	88.4	9.8	91.3	12.0	85.3	7.5
Turkey	26.4	7.5	30.1	8.2	22.5	6.8
			35–44 years old			
Large industrialized countries						
Canada	80.5	17.9	79.3	18.8	81.6	16.9
France	74.4	11.1	79.1	12.1	69.8	10.1
Germany	87.8	16.4	91.6	19.5	83.9	13.2
Italy	42.5	10.6	44.2	11.5	40.8	9.8
Japan[2]	77.0	14.5	77.0	23.6	77.0	5.4
United Kingdom	80.2	14.7	85.1	18.3	75.3	11.1
United States	88.4	26.6	87.6	28.0	89.1	25.3
Other countries						
Australia	54.5	16.5	66.9	17.5	42.2	15.5
Austria	73.1	7.4	80.5	9.1	65.3	5.6
Belgium	57.7	11.9	57.5	15.3	57.9	8.5
Czech Republic	85.6	11.1	91.2	13.3	80.0	8.8
Denmark	69.8	17.6	74.1	17.3	65.3	17.8
Finland	73.6	13.3	71.3	14.4	75.9	12.1
Greece	50.2	14.2	51.8	16.4	48.6	12.2
Ireland	51.0	10.8	47.6	12.5	54.3	9.2
Korea	60.6	16.5	71.2	23.5	49.3	9.0
Luxembourg[3]	33.5	14.0	37.8	17.5	29.0	10.4
Netherlands	65.3	24.8	70.0	27.9	60.3	21.6
New Zealand	63.8	11.5	67.7	12.8	59.9	10.3
Norway	85.6	21.2	85.3	21.3	85.9	21.0
Poland	81.7	9.7	82.1	9.5	81.3	9.9
Portugal	24.0	9.8	22.9	10.2	24.9	9.5
Spain	32.0	13.7	34.7	13.7	29.3	13.7
Sweden	80.5	15.8	77.6	17.0	83.5	14.6
Switzerland	84.5	10.4	89.1	13.2	79.8	7.5
Turkey	23.2	9.1	26.9	10.9	18.2	6.6

Table 23-1 Percentage of the population who completed secondary and higher education, by sex, country, and age: 1995—Continued

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
			45–54 years old			
Large industrialized countries						
Canada	71.4	17.3	72.0	20.0	70.8	14.5
France	62.0	10.2	67.2	12.3	56.7	8.2
Germany	83.8	13.9	90.1	18.9	77.3	8.8
Italy	27.8	7.9	31.9	9.4	23.8	6.4
Japan[2]	59.6	9.1	62.4	15.8	56.9	2.5
United Kingdom	71.6	10.9	78.8	14.9	64.4	6.9
United States	86.2	28.0	86.1	32.7	86.4	23.6
Other countries						
Australia	51.5	13.5	62.3	14.5	40.3	12.4
Austria	65.8	5.4	74.1	7.7	57.5	3.1
Belgium	47.4	10.0	50.2	14.0	44.5	5.9
Czech Republic	82.5	10.6	90.3	13.2	75.0	8.0
Denmark	64.3	15.2	68.9	17.0	59.5	13.3
Finland	58.6	11.8	57.6	14.2	59.6	9.4
Greece	33.7	10.1	37.7	12.4	29.8	7.9
Ireland	36.3	8.7	33.6	10.8	39.1	6.5
Korea	39.1	10.6	53.0	15.7	24.7	5.3
Luxembourg[3]	27.8	12.4	34.3	17.2	21.2	7.4
Netherlands	55.9	21.0	64.8	25.8	46.5	15.9
New Zealand	54.8	9.5	61.1	11.7	48.4	7.3
Norway	78.9	16.3	79.6	19.0	78.0	13.3
Poland	67.9	11.7	71.7	12.4	64.2	11.1
Portugal	15.9	6.1	17.1	7.4	14.8	5.0
Spain	17.9	8.9	22.5	11.1	13.4	6.8
Sweden	68.6	16.5	66.5	17.2	70.8	15.8
Switzerland	79.4	7.9	88.0	12.2	70.8	3.7
Turkey	20.5	10.3	22.7	12.0	16.7	7.4

[1] Includes individuals who had completed at least secondary education.

[2] Data are for 1989.

[3] Data are for 1996.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher.

SOURCE: Organization for Economic Co-operation and Development, INES Project, International Indicators Project.

Table 24-1 Percentage distribution of 16- to 24-year-olds, by recency of migration and race/ethnicity: October 1996

Recency of migration	Total	Hispanic				Non-Hispanic			
		Total	Puerto Rican	Mexican	Other Hispanic	Total*	White	Black	Asian/Pacific Islander
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Born outside 50 states/D.C.	11.5	41.5	26.7	42.3	46.0	6.6	3.4	5.6	59.5
First generation	10.3	34.1	61.4	28.8	37.4	6.3	5.5	3.1	31.1
Later generation	78.2	24.4	11.8	28.9	16.6	87.0	91.1	91.3	9.4

* Due to relatively small sample sizes, American Indian/Alaskan Natives are included in the total but are not shown separately.

NOTE: Details may not add to 100 due to rounding. People born in Puerto Rico and the U.S. territories are grouped with those born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington D.C. and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Table 25-1 Percentage of students in grades 6–12 who participated or planned to participate in community service, by selected characteristics: 1996

Selected characteristics	Participated in community service[1]			Will participate before the end of the school year[2]	Plan to do community service next year
	Total	Regular participation	One or two times		
Total	**49.1**	**25.6**	**23.4**	**31.1**	**80.5**
Control of school					
Public	47.4	24.4	22.9	32.1	79.8
Assigned	46.9	23.9	23.0	32.2	79.6
Chosen	50.1	27.8	22.3	31.7	80.7
Private	65.9	37.5	28.4	21.6	87.2
Church-related	68.6	40.1	28.5	20.2	87.7
Not church-related	56.6	28.5	28.1	26.3	85.4
School policy[3]					
School required and arranged community service	56.3	29.5	26.8	32.5	86.8
School only required community service	18.9	8.7	10.2	61.1	75.7
School only arranged community service	52.1	27.3	24.8	28.9	81.2
School did not require or arrange community service	29.6	15.2	14.3	36.8	70.0
Student activities					
Student involved in student government					
Yes	69.9	41.9	28.0	21.2	89.2
No	46.8	23.6	23.3	32.2	79.0
Student involved in other school activities					
Yes	57.3	30.9	26.3	27.7	84.6
No	31.6	14.3	17.2	38.4	71.7
Student involved in non-school activities					
Yes	59.8	32.1	27.7	25.9	86.1
No	30.9	14.7	16.2	39.9	70.8
Student worked for pay					
Yes	55.7	30.1	25.6	27.3	81.4
No	42.9	21.4	21.5	34.7	79.6

[1] Data were collected from January 2, 1996 through April 13, 1996. Any student who reported participating in at least one activity more than twice during the school year was classified as a regular participant. Students may have participated in multiple activities without being classified as regular participants if no individual activity was performed more than twice. The percentages were calculated based on all students in school in grades 6–12, not just those who participated or planned to participate in community service.

[2] Only students who had performed no community service by the time of the interview were asked if they had plans to participate.

[3] For schools that required students to participate in community service, students must have completed the community service before graduation.

NOTE: Ungraded students or children who were home schooled were not included in this analysis. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

Table 26-1 Average years of study public school districts required in core subjects[1] for high school graduation and percentage of public school districts with graduation requirements at or above NCEE recommendations,[2] by subject and state: School year 1993–94

State	English		Mathematics		Science		Core subjects	
	Average years required	Percentage requiring 4 or more years	Average years required	Percentage requiring 3 or more years	Average years required	Percentage requiring 3 or more years	Average years required	Percentage meeting NCEE recommendations[3]
United States	**3.9**	**85.2**	**2.5**	**44.8**	**2.2**	**25.2**	**11.5**	**19.8**
Alabama	4.0	100.0	2.5	37.6	2.3	28.2	12.0	26.0
Alaska	4.0	100.0	2.6	57.4	2.3	30.8	12.0	28.7
Arizona	4.0	100.0	2.3	22.0	2.0	11.7	11.3	8.9
Arkansas	4.0	99.4	2.9	86.3	2.6	60.4	12.3	43.2
California	3.7	68.4	2.3	24.8	2.1	8.4	11.4	5.0
Colorado	3.8	78.5	2.5	44.2	2.3	27.0	11.5	24.9
Connecticut	4.0	100.0	3.0	92.7	2.2	23.1	12.1	22.1
Delaware	4.0	100.0	2.4	41.2	2.0	11.8	11.6	11.8
District of Columbia	4.0	100.0	2.0	0.0	3.5	100.0	11.5	0.0
Florida	4.0	100.0	3.0	98.5	3.0	94.1	13.1	90.4
Georgia	4.0	96.6	2.6	56.9	2.5	49.4	12.1	39.4
Hawaii	4.0	100.0	3.0	100.0	3.0	100.0	14.0	100.0
Idaho	4.0	98.0	2.4	28.9	2.3	21.2	11.6	18.3
Illinois	3.4	31.2	2.2	17.5	1.9	16.0	9.7	6.8
Indiana	4.0	98.2	2.2	18.0	2.1	8.8	10.7	6.0
Iowa	3.6	46.1	2.3	26.4	2.2	23.2	11.1	11.5
Kansas	4.0	99.6	2.3	29.2	2.2	18.1	11.5	14.9
Kentucky	4.0	100.0	2.9	91.2	2.2	26.3	11.5	14.3
Louisiana	4.0	100.0	3.0	100.0	3.0	96.6	13.0	94.7
Maine	4.0	100.0	2.5	44.1	2.2	19.6	11.1	17.3
Maryland	4.0	100.0	3.0	100.0	2.4	35.7	12.5	35.7
Massachusetts	3.9	95.3	2.5	47.3	2.2	28.8	11.2	26.8
Michigan	3.5	51.2	2.2	17.6	2.0	11.8	10.6	4.5
Minnesota	4.0	100.0	2.3	32.3	2.1	20.0	11.8	17.1
Mississippi	4.0	99.3	2.5	42.9	2.4	32.2	11.7	27.5
Missouri	3.2	20.9	2.2	19.8	2.1	13.7	10.3	5.0
Montana	4.0	100.0	2.2	17.6	2.1	13.2	10.9	7.8
Nebraska	3.9	90.9	2.5	42.5	2.2	23.0	11.8	17.1
Nevada	4.0	100.0	2.3	29.4	2.1	11.8	10.8	0.0
New Hampshire	4.0	97.8	2.2	17.0	2.1	4.6	10.8	2.8
New Jersey	4.0	99.2	3.0	96.3	2.2	18.0	12.1	18.0
New Mexico	4.0	100.0	2.9	92.8	2.1	17.0	12.0	13.4
New York	4.0	100.0	2.1	8.4	2.0	6.8	12.0	5.1
North Carolina	3.9	97.1	2.7	63.1	2.5	51.3	11.8	45.0
North Dakota	4.0	97.0	2.4	40.7	2.3	27.7	11.7	23.0

Table 26-1 Average years of study public school districts required in core subjects[1] for high school graduation and percentage of public school districts with graduation requirements at or above NCEE recommendations,[2] by subject and state: School year 1993–94—Continued

	English		Mathematics		Science		Core subjects	
State	Average years required	Percentage requiring 4 or more years	Average years required	Percentage requiring 3 or more years	Average years required	Percentage requiring 3 or more years	Average years required	Percentage meeting NCEE recommendations[3]
Ohio	3.7	71.4	2.2	18.8	1.6	9.8	10.2	4.5
Oklahoma	4.0	100.0	2.4	35.3	2.3	26.8	11.3	15.5
Oregon	3.9	92.8	2.1	7.6	2.0	3.6	11.2	6.3
Pennsylvania	4.0	98.6	3.2	98.1	3.0	90.8	13.7	90.1
Rhode Island	4.0	100.0	2.3	25.2	2.2	13.0	10.7	6.9
South Carolina	4.0	100.0	3.0	97.8	2.1	17.6	12.0	14.0
South Dakota	4.0	100.0	2.4	35.4	2.3	29.7	11.7	19.3
Tennessee	4.0	98.8	2.4	40.6	2.2	21.6	10.7	9.8
Texas	4.0	99.5	3.0	97.2	2.3	29.4	12.3	25.1
Utah	3.7	69.8	2.4	40.6	2.3	29.7	10.9	6.3
Vermont	4.0	100.0	3.0	79.1	2.4	53.0	12.3	51.4
Virginia	4.0	100.0	2.5	45.2	2.3	31.1	11.8	30.0
Washington	3.8	74.2	2.2	22.2	2.1	11.7	11.3	8.4
West Virginia	3.9	98.1	2.4	35.9	2.1	11.5	11.5	9.6
Wisconsin	4.0	96.4	2.2	17.3	2.1	11.4	11.3	6.8
Wyoming	3.8	81.7	2.5	45.1	2.3	35.6	11.5	24.2

[1] Core subjects include English, mathematics, science, and social studies. Data for social studies are included in the totals but are not shown separately.

[2] The National Commission on Excellence in Education (NCEE) recommends that students complete 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies.

[3] "Percentage meeting NCEE recommendations" refers to a combination of the required years students must take the four core subjects: 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies, which adds to a total of 13 years.

NOTE: Public school districts with curriculum requirements for 3-year programs were excluded from this analysis (1 percent of all districts).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (Teacher Demand and Shortage Questionnaire), 1993–94.

Table 26-2 Average years of study public school districts required in core subjects[1] for high school graduation and percentage of public school districts with graduation requirements at or above NCEE recommendations,[2] by subject and selected district characteristics: School years 1987–88, 1990–91, and 1993–94

District characteristics	English: Average years required	English: Percentage requiring 4 or more years	Mathematics: Average years required	Mathematics: Percentage requiring 3 or more years	Science: Average years required	Science: Percentage requiring 3 or more years	Core subjects: Average years required	Core subjects: Percentage meeting NCEE recommendations[3]
School year 1993–94								
Total	**3.9**	**85.2**	**2.5**	**44.8**	**2.2**	**25.2**	**11.5**	**19.8**
Metropolitan status								
Urban area	3.9	88.0	2.5	50.0	2.1	20.7	11.4	18.2
Outside urban area	3.8	84.1	2.5	44.1	2.2	23.6	11.5	20.0
Rural area	3.9	85.7	2.5	44.9	2.2	26.6	11.5	19.8
Percentage of students eligible for free or reduced-price lunch								
0–5	3.9	86.9	2.5	46.1	2.1	22.8	11.3	17.7
6–20	3.8	79.0	2.4	35.0	2.1	20.6	11.3	15.4
21–40	3.9	85.5	2.4	40.7	2.2	23.7	11.5	18.6
41 or more	3.9	88.2	2.6	53.3	2.3	29.0	11.7	23.4
Percentage of minority students enrolled								
Less than 5	3.8	79.8	2.4	36.0	2.2	24.7	11.3	17.8
5–19	3.9	87.1	2.5	43.4	2.2	22.8	11.5	18.3
20–49	3.9	91.6	2.6	56.9	2.2	26.8	11.7	22.8
50 or more	3.9	92.5	2.7	64.2	2.3	30.2	12.0	26.7
School year 1990–91								
Total	**3.8**	**[4]82.5**	**[4]2.4**	**[4]40.3**	**2.1**	**[4]21.5**	**11.2**	**[4]15.2**
Metropolitan status								
Urban area	3.8	83.2	2.5	50.2	2.1	22.7	11.3	18.5
Outside urban area	3.8	82.2	2.4	39.9	2.1	20.8	11.3	15.8
Rural area	3.8	82.6	2.4	39.8	2.1	21.9	11.2	14.5
Percentage of minority students enrolled								
Less than 5	3.7	71.9	2.3	30.2	2.1	18.8	11.0	9.6
5–19	3.8	78.9	2.4	36.4	2.1	21.0	11.2	13.2
20–49	3.8	83.8	2.4	35.7	2.1	22.2	11.2	17.3
50 or more	3.8	87.6	2.5	46.8	2.1	22.6	11.3	17.5
School year 1987–88								
Total	**3.8**	**80.0**	**2.4**	**34.6**	**2.0**	**17.2**	**11.0**	**12.3**
Percentage of students eligible for free or reduced-price lunch								
0–5	3.8	83.0	2.3	30.8	2.0	16.8	11.0	14.0
6–20	3.7	76.1	2.3	29.2	2.0	15.2	10.8	10.7
21–40	3.8	78.6	2.3	33.8	2.0	16.1	11.0	12.0
41 or more	3.9	87.0	2.5	46.5	2.1	22.2	11.3	14.8
Percentage of minority students enrolled								
Less than 5	3.7	75.4	2.3	27.7	2.0	15.8	10.8	11.3
5–19	3.8	82.3	2.4	34.6	2.0	16.3	10.9	12.0
20–49	3.9	87.2	2.6	50.6	2.1	20.8	11.4	14.2
50 or more	3.9	89.5	2.6	48.8	2.1	21.8	11.4	15.9

[1] Core subjects include English, mathematics, science, and social studies. Data for social studies are included in the totals but are not shown separately.

[2] The National Commission on Excellence in Education (NCEE) recommends that students complete 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies.

[3] "Percentage maating NCEE recommendations" refers to a combination of the required years students must take the four core subjects: 4 years of English, 3 years of mathematics, 3 years of science, and 3 years of social studies, which adds to a total of 13 years.

[4] Revised from previously published figures.

NOTE: Data for students eligible for free or reduced-price lunch were not available at the district level for school year 1990–91. Data for metropolitan status were not available at the district level for school year 1987–88. Public school districts with curriculum requirements for 3-year programs were excluded from this analysis (1 percent of all districts).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (Teacher Demand and Shortage Questionnaire), 1987–88, 1990–91, and 1993–94.

Note to Indicator 27: Advanced Placement examinations

The Advanced Placement (AP) examinations are offered to high school students annually to give them an opportunity to demonstrate college-level achievement. The AP program is open to all students. However, it is advised that only students who have studied beyond the normal secondary school level take these examinations. High school students take the examinations voluntarily; however, several states have legislation that supports and encourages participation in the AP program.

Data for this analysis were taken from the October Current Population Survey (CPS) and should not be compared to data from *The National Education Goals Report, 1996*. In this analysis, the number of 11th- and 12th-graders who took AP examinations and the number of examinations taken by these students were compared to populations of 1,000 12th-graders as defined by the October CPS. This comparison provides an estimate of the average number of students who participate in the AP program for a single cohort and the average number of AP exams a single cohort takes, because students rarely take any given AP examination (e.g., biology) in both the 11th and 12th grades.

Enrollment figures from the CPS include both public and private school data, which are different from the data shown in *The National Education Goals Report*. Enrollment figures from *The National Education Goals Report* are based on the Common Core of Data (CCD), which does not include data from private schools but produces private school enrollment data by multiplying the public school figures by a private school enrollment adjustment factor. As a result, data in this analysis are not directly comparable to data found in the *Goals* report.

Changes from *The Condition of Education 1997*

To calculate results for this analysis, calculations from the 1997 edition of *The Condition* were changed in three ways: 1) 9th-graders, 10th-graders, college students, and others were excluded from the number of students who took AP examinations and from the number of examinations taken. Only 11th- and 12th-graders were included; 2) only 12th-graders were included in the denominators for the calculations (see above); and 3) the CPS population in the 1997 analysis included only those 11th- and 12th-graders who were under the age of 34. This year, the CPS population of 12th-graders (the denominator used in the calculations) includes all age groups, since it is possible that someone over the age of 34 could be enrolled in the 11th or 12th grade and have taken AP examinations, or the age of a 12th-grader could have been improperly reported.

Subject definitions

Below are the specific subjects that make up the AP examination subject areas shown in this analysis:

Social studies	U.S. History, European History, U.S. Government and Politics, Comparative Government and Politics, and Psychology;
English	English Language and Composition, and Literature and Composition;
Foreign language	French Language, French Literature, German Language, Latin/Virgil, Latin Literature, Spanish Language, and Spanish Literature;
Calculus	Calculus AB and Calculus BC;
Computer Science	Computer Science A and Computer Science AB;
Science	Biology, Chemistry, Physics B, Physics C (mechanical), and Physics C (electricity and magnetism).

Examinations

Most of the AP examinations contain multiple choice and free-response sections. The examinations are graded based on scores from both types of responses. The program's examinations are criterion- rather than normed-referenced, with cut scores established at four different points along these scales to designate a grade of 5, 4, 3, 2, or 1 (grade of 5: extremely well qualified; grade of 4: well qualified; grade of 3: qualified; grade of 2: possibly qualified; and grade of 1: no recommendation). The grades are determined by the chief readers, who rely on their subject matter expertise, statistical equating data, and data from comparability studies. Cut scores frequently vary from year to year for each examination, reflecting changes in the level of examination difficulty. Therefore, the College Board does not recommend using grade data for trend analysis. Grades of 3 and above are usually accepted for college credit and advanced placement at participating colleges and universities, although credit varies among institutions.

SOURCE: The College Board, *A Guide to the Advanced Placement Program*, 1992.

Table 29-1 Minority field concentration ratio[1] and dissimilarity index[2] at the bachelor's degree level: Academic years ending 1977–95

Field of study	1977	1979	1981	1985	1987	1989	1990	1991[3]	1992	1993	1994	1995
						Black						
Humanities and social/behavioral sciences	1.02	1.03	1.01	0.98	0.94	0.92	0.93	0.93	0.93	0.94	0.96	0.96
Humanities	0.69	0.78	0.74	0.83	0.83	0.80	0.81	0.78	0.80	0.80	0.82	0.82
Social and behavioral sciences	1.32	1.27	1.27	1.13	1.06	1.04	1.05	1.07	1.07	1.08	1.09	1.10
Natural and computer sciences and engineering	0.60	0.61	0.66	0.75	0.90	0.94	0.95	0.96	0.95	0.94	0.91	0.90
Natural sciences	0.65	0.69	0.74	0.81	0.87	0.91	0.90	0.92	0.92	0.91	0.86	0.83
Life sciences	0.70	0.77	0.81	0.92	0.92	1.00	0.99	0.96	0.95	0.95	0.87	0.83
Physical sciences	0.45	0.44	0.57	0.58	0.73	0.72	0.73	0.79	0.77	0.72	0.71	0.72
Mathematics	0.78	0.85	0.82	0.91	0.93	0.95	0.88	0.96	1.00	1.00	1.00	1.00
Computer sciences and engineering	0.51	0.51	0.59	0.71	0.92	0.96	0.98	0.98	0.97	0.96	0.96	0.97
Computer and information sciences	0.91	0.91	0.83	0.98	1.44	1.68	1.71	1.59	1.61	1.67	1.70	1.68
Engineering[3]	0.45	0.45	0.54	0.48	0.61	0.60	0.63	0.68	0.68	0.70	0.67	0.68
Engineering technologies	—	—	—	1.04	1.08	1.08	1.14	1.19	1.17	1.01	1.05	1.07
Technical and professional	1.11	1.11	1.11	1.11	1.07	1.06	1.06	1.06	1.06	1.05	1.06	1.06
Education	1.42	1.40	1.35	1.01	0.81	0.71	0.66	0.67	0.69	0.70	0.74	0.75
Business and management	1.03	1.01	1.02	1.09	1.07	1.07	1.09	1.12	1.13	1.14	1.19	1.20
Health sciences	0.84	0.81	0.84	0.99	1.03	1.15	1.20	1.17	1.05	1.02	0.87	0.92
Other technical/professional	0.97	1.10	1.18	1.29	1.29	1.29	1.29	1.26	1.23	1.21	1.17	1.16
Dissimilarity Index	12.7	11.2	10.8	[3]7.8	[3]7.9	[3]8.8	[3]9.3	9.5	8.7	8.5	9.2	9.1
						Hispanic						
Humanities and social/behavioral sciences	1.23	1.22	1.20	1.15	1.11	1.14	1.13	1.10	1.17	1.18	1.21	1.22
Humanities	1.17	1.15	1.11	1.09	1.10	1.10	1.12	1.06	1.13	1.19	1.22	1.24
Social and behavioral sciences	1.29	1.28	1.29	1.20	1.13	1.18	1.14	1.13	1.22	1.17	1.20	1.20
Natural and computer sciences and engineering	0.85	0.88	0.91	0.92	1.05	1.05	1.07	1.07	1.03	0.99	0.96	0.94
Natural sciences	0.82	0.89	0.94	0.95	0.98	1.01	0.98	0.99	0.98	0.92	0.91	0.84
Life sciences	0.89	1.04	1.13	1.25	1.26	1.25	1.18	1.20	1.16	1.08	1.03	0.94
Physical sciences	0.71	0.66	0.70	0.64	0.77	0.77	0.70	0.71	0.63	0.64	0.65	0.55
Mathematics	0.76	0.76	0.72	0.67	0.62	0.72	0.80	0.80	0.88	0.77	0.87	0.83
Computer sciences and engineering	0.90	0.86	0.87	0.91	1.09	1.08	1.12	1.13	1.07	1.05	1.00	1.03
Computer and information sciences	0.73	0.84	0.89	0.84	1.11	1.15	1.18	1.26	1.20	1.09	1.03	1.14
Engineering[3]	0.92	0.86	0.87	0.93	1.09	1.09	1.07	1.10	1.04	1.05	1.00	1.03
Engineering technologies	—	—	—	0.97	1.08	0.95	1.21	1.03	0.98	1.00	0.95	0.93
Technical/professional	0.89	0.91	0.92	0.95	0.92	0.90	0.90	0.92	0.88	0.88	0.87	0.87
Education	1.05	1.11	1.12	1.04	0.89	0.74	0.81	0.86	0.73	0.64	0.64	0.62
Business and management	0.84	0.85	0.87	0.94	0.97	0.97	0.93	0.94	0.93	0.98	1.00	1.03
Health sciences	0.72	0.76	0.75	0.89	0.75	0.79	0.87	0.85	0.78	0.74	0.68	0.66
Other technical/professional	0.84	0.87	0.90	0.96	0.93	0.96	0.94	0.95	0.95	0.97	0.94	0.94
Dissimilarity Index	8.7	8.5	8.0	5.3	5.3	[3]6.0	5.9	5.1	7.1	7.0	7.4	8.4

Table 29-1 Minority field concentration ratio[1] and dissimilarity index[2] at the bachelor's degree level: Academic years ending 1977–95—Continued

Field of study	1977	1979	1981	1985	1987	1989	1990	1991[3]	1992	1993	1994	1995
						Asian/Pacific Islander						
Humanities and social/behavioral sciences	0.96	0.92	0.87	0.82	0.86	0.88	0.87	0.86	0.88	0.88	0.90	0.90
Humanities	0.90	0.88	0.84	0.79	0.82	0.80	0.81	0.80	0.81	0.83	0.85	0.83
Social and behavioral sciences	1.02	0.96	0.89	0.84	0.90	0.95	0.93	0.93	0.94	0.93	0.96	0.97
Natural and computer sciences and engineering	1.55	1.69	1.89	2.01	2.13	2.23	2.35	2.38	2.32	2.26	2.15	2.11
Natural sciences	1.46	1.56	1.56	1.81	1.91	2.01	2.13	2.13	2.16	2.16	2.11	2.14
Life sciences	1.62	1.78	1.72	1.99	2.16	2.33	2.54	2.55	2.71	2.68	2.64	2.62
Physical sciences	1.06	1.07	1.21	1.20	1.38	1.47	1.63	1.62	1.46	1.45	1.26	1.36
Mathematics	1.48	1.65	1.78	2.35	2.00	1.88	1.67	1.64	1.46	1.44	1.41	1.41
Computer sciences and engineering	1.70	1.85	2.19	2.13	2.25	2.38	2.50	2.57	2.45	2.35	2.18	2.08
Computer and information sciences	1.74	1.85	2.29	2.12	2.17	2.41	2.58	2.52	2.48	2.56	2.39	2.30
Engineering[3]	1.70	1.85	2.16	2.39	2.55	2.72	2.86	2.99	2.79	2.63	2.45	2.34
Engineering technologies	—	—	—	1.12	1.32	1.22	1.18	1.22	1.21	1.10	0.96	0.87
Technical/professional	0.86	0.83	0.78	0.69	0.65	0.68	0.68	0.69	0.71	0.72	0.73	0.73
Education	0.42	0.38	0.33	0.32	0.36	0.29	0.22	0.19	0.20	0.21	0.20	0.22
Business and management	1.15	1.08	0.97	0.87	0.76	0.87	0.90	0.96	1.01	1.06	1.10	1.13
Health sciences	1.16	1.02	0.99	0.77	0.73	0.76	0.86	0.88	0.87	0.82	0.82	0.81
Other technical/professional	0.87	0.83	0.75	0.58	0.62	0.57	0.55	0.55	0.52	0.52	0.52	0.51
Dissimilarity Index	13.1	13.8	16.1	21.8	22.9	21.5	21.7	21.3	20.1	20.2	19.8	20.3
						American Indian/Alaskan Native						
Humanities and social/behavioral sciences	1.02	1.08	1.14	1.09	1.11	1.02	1.05	1.00	1.03	1.08	1.08	1.06
Humanities	0.94	0.92	1.03	1.05	1.07	1.02	1.07	1.00	1.04	1.03	1.04	1.04
Social and behavioral sciences	1.10	1.23	1.25	1.14	1.16	1.02	1.03	0.99	1.02	1.13	1.11	1.07
Natural and computer sciences and engineering	0.76	0.75	0.69	0.87	0.87	0.94	0.83	0.91	0.87	0.89	0.87	0.89
Natural sciences	0.76	0.81	0.73	0.96	0.94	1.01	0.94	1.04	0.91	0.98	0.93	0.93
Life sciences	0.80	0.81	0.83	0.98	1.00	1.10	0.91	1.16	1.01	1.00	0.98	0.97
Physical sciences	0.81	0.72	0.69	0.92	0.91	0.93	1.14	1.04	0.85	1.09	0.86	0.92
Mathematics	0.50	0.95	0.43	0.94	0.83	0.89	0.81	0.76	0.70	0.79	0.82	0.77
Computer sciences and engineering	0.77	0.69	0.66	0.82	0.83	0.90	0.75	0.82	0.84	0.81	0.82	0.86
Computer and information sciences	0.66	0.35	0.38	0.86	0.81	0.86	0.96	0.92	0.85	0.84	0.74	0.98
Engineering[3]	0.79	0.73	0.72	0.67	0.79	0.74	0.62	0.70	0.73	0.66	0.74	0.70
Engineering technologies	—	—	—	1.31	1.01	1.46	0.91	1.07	1.22	1.33	1.19	1.28
Technical/professional	1.06	1.03	1.02	1.00	0.99	1.00	1.02	1.03	1.02	0.98	0.99	1.00
Education	1.37	1.39	1.36	1.21	1.23	1.31	1.25	1.24	1.21	1.11	1.17	1.26
Business and management	0.79	0.79	0.82	0.91	0.81	0.83	0.81	0.84	0.82	0.86	0.82	0.78
Health sciences	0.73	0.87	0.83	0.96	1.05	1.02	1.08	1.14	1.15	1.03	0.96	0.97
Other technical/professional	1.21	1.10	1.16	1.05	1.14	1.08	1.19	1.13	1.14	1.05	1.12	1.11
Dissimilarity Index	10.0	10.3	10.5	[3]5.7	7.2	[3]6.2	7.3	5.8	6.3	5.3	6.2	6.5

Table 29-1 Minority field concentration ratio[1] and dissimilarity index[2] at the bachelor's degree level: Academic years ending 1977–95—Continued

Field of study	1977	1979	1981	1985	1987	1989	1990	1991[3]	1992	1993	1994	1995
						Nonresident alien						
Humanities and social/behavioral sciences	0.73	0.76	0.69	0.69	0.65	0.65	0.68	0.71	0.73	0.74	0.73	0.75
Humanities	0.71	0.76	0.65	0.66	0.63	0.65	0.67	0.72	0.75	0.76	0.74	0.78
Social and behavioral sciences	0.75	0.76	0.73	0.71	0.68	0.66	0.69	0.70	0.71	0.73	0.72	0.72
Natural and computer sciences and engineering	2.32	2.39	2.48	1.96	2.06	2.21	2.32	2.20	2.19	2.07	1.91	1.80
Natural sciences	1.22	1.19	1.10	1.08	1.02	1.16	1.20	1.24	1.23	1.20	1.03	0.95
Life sciences	1.11	0.93	0.86	0.81	0.81	0.97	0.98	1.07	0.99	1.00	0.82	0.76
Physical sciences	1.44	1.50	1.23	1.08	1.09	1.34	1.45	1.40	1.44	1.57	1.31	1.17
Mathematics	1.30	1.61	1.72	1.77	1.42	1.39	1.44	1.49	1.66	1.35	1.36	1.38
Computer sciences and engineering	4.19	3.89	3.77	2.50	2.67	2.87	3.07	2.91	2.93	2.78	2.69	2.58
Computer and information sciences	2.48	2.28	2.21	1.91	2.54	3.14	3.45	3.54	3.81	3.92	3.86	3.56
Engineering[3]	4.42	4.12	4.09	3.43	3.48	3.64	3.84	3.08	3.06	2.89	2.73	2.66
Engineering technologies	—	—	—	2.21	1.76	1.27	1.50	1.53	1.28	0.95	1.05	1.06
Technical/professional	0.77	0.70	0.68	0.78	0.79	0.81	0.80	0.84	0.84	0.87	0.91	0.92
Education	0.30	0.36	0.35	0.37	0.31	0.23	0.23	0.26	0.20	0.19	0.19	0.19
Business and management	1.28	1.04	0.94	1.07	1.14	1.21	1.21	1.29	1.36	1.45	1.64	1.77
Health sciences	0.64	0.48	0.37	0.42	0.41	0.47	0.54	0.61	0.55	0.53	0.45	0.38
Other technical/professional	0.73	0.69	0.73	0.72	0.66	0.67	0.66	0.64	0.61	0.60	0.59	0.56
Dissimilarity Index	24.9	22.4	22.5	20.4	23.9	25.3	25.7	26.1	27.4	28.1	30.3	31.1

— Data not available for this field prior to 1985.

[1] The minority field concentration ratio is calculated as the percentage of a minority group earning bachelor's degrees who majored in a selected field of study divided by the percentage of whites earning bachelor's degrees who majored in the same field. For example, the 1995 black to white concentration ratio for education = 7.6/10.2 = .75. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, while a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

[2] The dissimilarity index represents the percentage distribution of students in a minority group who would need to switch fields of study to match the percentage distribution of white students majoring in the same field of study. It is calculated as the sum of the absolute difference between the percentage of minority and white students majoring in each field divided by 2.

[3] Revised from previously published figures.

NOTE: See supplemental note to this indicator for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS/HEGIS "Completions" surveys).

Note to Indicator 29: Classification of fields of study

The data on the number of bachelor's degrees conferred by specific fields of study were obtained from the Higher Education General Information Survey (HEGIS) "Degrees and Other Formal Awards Conferred" surveys and the Integrated Postsecondary Education Data System (IPEDS) "Completions" surveys. The list below shows how related degree fields were reclassified into consolidated degree fields for this analysis.

Consolidated degree field	Degree fields
Humanities	Area and ethnic studies
	English language and literature/letters
	Foreign languages
	Liberal/general studies
	Multi/interdisciplinary studies
	Philosophy and religion
	Theology
	Visual and performing arts
Social and behavioral sciences	Psychology
	Social sciences and history
Natural sciences	Biological sciences/life sciences
	Mathematics
	Physical sciences
Engineering and engineering technologies	Engineering
	Engineering-related technologies
	Construction trades
	Mechanics and repairs
Other technical/professional	Agriculture
	Architecture
	Communications
	Communication technology
	Home economics
	Law
	Library/archival sciences
	Military sciences
	Parks and recreation
	Precision production trades
	Protective sciences
	Public administration and services
	Transportation and material moving

In the 1991–92 academic year, a new classification of instructional programs was initiated. The figures for earlier years were reclassified when necessary to make them conform to the new taxonomy. To facilitate trend comparisons, certain aggregations were created from the degree fields as reported in the IPEDS "Completions" surveys: "Agriculture" includes agricultural business and production, agricultural sciences, and conservation and renewable natural resources, and "Business Management" includes business management and administrative services, marketing operations/marketing and distribution, and personal and miscellaneous services.

Table 30-1 Employment rates for recent high school completers not enrolled in college and for recent school dropouts, by sex: October 1960–96

October	Recent high school completers not enrolled in college			Recent school dropouts		
	Total	Male	Female	Total	Male	Female
1960	65.0	75.3	58.8	50.9	61.8	40.8
1961	65.4	70.1	62.5	49.4	60.3	38.3
1962	68.3	77.8	61.5	40.4	61.9	23.3
1963	64.7	72.6	59.5	45.1	64.4	27.0
1964	63.4	79.2	53.5	41.6	63.0	24.0
1965	71.9	84.3	63.2	47.9	66.8	26.8
1966	64.9	79.7	55.8	51.4	69.4	33.6
1967	65.9	78.3	57.7	50.3	65.0	34.4
1968	67.3	79.1	60.2	50.0	65.5	34.0
1969	70.1	83.1	61.1	51.0	69.8	30.9
1970	63.2	76.1	52.6	44.7	56.5	31.9
1971	65.1	77.5	55.6	46.8	59.3	31.7
1972	70.1	79.9	62.2	46.8	64.7	28.3
1973	70.7	81.7	61.9	52.7	62.5	40.0
1974	69.1	76.0	63.2	49.3	63.8	32.2
1975	65.1	74.1	57.5	41.9	54.8	29.5
1976	68.8	75.9	61.7	44.8	58.0	28.2
1977	72.0	77.7	67.2	52.7	64.0	39.3
1978	74.9	81.6	67.5	51.2	63.7	34.8
1979	72.4	79.2	66.7	49.7	65.3	34.3
1980	68.9	72.6	65.0	44.6	51.9	34.8
1981	65.9	70.0	62.1	42.1	54.1	29.3
1982	60.4	64.9	56.0	38.0	44.4	30.5
1983	63.0	66.1	60.1	44.4	51.6	35.8
1984	64.0	69.1	59.7	44.0	53.1	33.7
1985	62.0	65.0	59.3	44.2	51.9	35.8
1986	65.2	69.4	61.6	48.0	57.9	36.8
1987	68.9	76.9	61.9	41.8	46.0	36.6
1988	71.9	74.2	69.5	43.6	53.7	30.6
1989	71.7	77.4	65.6	46.7	52.2	40.1
1990	67.8	73.1	61.9	46.3	51.3	40.6
1991	59.6	62.2	56.1	36.8	48.8	25.0
1992	62.7	68.8	55.8	36.2	44.8	28.7
1993	64.2	67.6	60.6	46.9	61.6	30.1
1994	64.2	70.4	57.7	42.9	58.2	27.1
1995	63.1	64.1	62.3	47.7	52.8	41.1
1996	59.0	61.6	55.9	42.3	51.0	34.1

NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent school dropouts are individuals ages 16–24 who did not complete high school, who were not enrolled during the survey month, and who were in school 12 months earlier.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–87*. U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 35-1 Percentage of adults who reported obtaining various sources of news and participating in reading activities, by frequency and selected characteristics: 1996

Selected characteristics	Read a newspaper			Read about national news in newspaper or news magazine[1]			Watched national news on television or listened to news on radio			Read a book
	Hardly ever	At least once a month	At least once a week	Hardly ever	At least once a month	At least once a week	Hardly ever	At least once a month	At least once a week	In past 6 months
Total	**11.0**	**3.6**	**85.4**	**32.4**	**11.5**	**56.1**	**5.5**	**3.1**	**91.5**	**65.5**
Highest education level										
Less than high school diploma	22.4	6.8	70.8	53.0	9.1	37.8	8.8	1.7	89.6	41.8
High school diploma or GED	10.3	3.8	85.9	34.7	12.2	53.1	5.8	4.0	90.2	62.9
Some college/vocational/technical	9.1	0.9	90.0	29.7	13.7	56.6	2.5	3.4	94.1	72.9
Bachelor's degree	7.7	2.1	90.2	20.7	10.2	69.1	4.0	1.7	94.4	78.8
Graduate/professional school	6.1	2.0	91.9	8.9	10.7	80.5	3.2	0.9	95.9	89.9
Race/ethnicity[2]										
White	9.4	3.0	87.7	31.1	10.7	58.2	5.7	3.1	91.3	67.9
Black	11.3	3.6	85.1	38.4	14.0	47.7	3.4	2.5	94.1	63.0
Hispanic	23.8	8.7	67.5	40.1	12.4	47.5	7.1	3.1	89.8	50.4
Sex										
Male	9.0	3.9	87.1	26.9	11.2	62.0	4.8	3.1	92.1	59.4
Female	12.8	3.3	83.9	37.5	11.8	50.8	6.1	3.0	90.9	71.1
Household income										
$10,000 or less	23.5	6.5	70.0	47.9	11.6	40.5	7.5	2.0	90.6	53.9
10,001–20,000	10.2	3.6	86.2	37.4	12.3	50.3	5.6	4.2	90.3	55.6
20,001–35,000	13.9	4.9	81.2	39.0	9.1	51.9	5.8	3.6	90.7	63.1
35,001–50,000	6.6	2.9	90.5	27.2	12.7	60.1	6.4	4.1	89.5	70.3
50,001 or more	6.1	1.7	92.3	20.2	12.0	67.8	3.5	1.8	94.7	75.6
Parent with child age 18 or younger[3]										
Yes	10.8	4.7	84.5	33.6	13.3	53.1	5.6	3.6	90.9	66.4
No	11.1	2.9	86.0	31.7	10.4	58.0	5.4	2.7	91.9	65.5

[1] The variable "Read about national news in a newspaper or news magazine" is a separate variable from "Read a newspaper" and focuses on the subject matter read by respondents (e.g., national news) rather than the type of reading material (e.g., newspaper versus news magazine).

[2] Included in the totals but not shown separately are adults from other racial/ethnic groups.

[3] Includes stepparents and guardians.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Adult Civic Involvement component).

Note to Indicator 35: Civic Involvement

The following are sample questions that were used in the National Household Education Survey (NHES) 1996 to examine adult participation in activities that promote civic involvement.

- Are you a member of any organization, like a community group, church or synagogue, union, or professional organization?
- Do you participate in any ongoing community service activity, for example, volunteering at a school, coaching a sports team, or working with a church or neighborhood association?
- Which of the following activities, if any, have you done in the past 12 months:
  a. Contributed money to a candidate, a political party, or some political cause?
  b. Worked either for pay or as a volunteer for a candidate, a political party, or some political cause?
  c. Attended a public meeting, for example, a town meeting, a political rally, or a meeting of a neighborhood organization?

Table 36-1 Average amount of time elementary[1] teachers reported that their students spent on homework during the week and teachers' use of homework during the semester, by control of school and years of teaching experience: School year 1994–95

	Public			Private		
		Years of teaching experience			Years of teaching experience	
Time spent on homework and teachers' use of homework	Total	3 years or less	4 years or more	Total	3 years or less	4 years or more
Average time spent on homework during the week						
None	5.5	1.7	6.1	1.9	4.4	1.4
1 hour or less	45.5	42.9	45.9	39.7	32.2	41.2
More than 1 hour to 2 hours	26.0	37.1	24.5	29.8	31.0	29.6
More than 2 hours	23.0	18.3	23.6	28.5	32.4	27.8
Percentage of teachers who used[2] written homework in the following ways during the previous semester:						
Record only whether assignments were completed	47.7	48.9	47.5	54.4	53.4	54.6
Collect, correct, and keep assignments	41.2	46.7	40.5	52.6	39.5	55.1
Keep items in a student portfolio	35.1	44.3	33.8	37.0	26.6	39.1
Collect, correct, and return assignments to students	72.3	78.3	71.5	81.8	81.4	81.8
Have students exchange assignments and correct them in class	27.0	28.0	26.9	35.4	26.3	37.2
Have students correct their own assignments in class	38.2	35.0	38.6	46.9	33.7	49.4
Use assignments as a basis for class discussion	55.0	50.8	55.6	55.5	45.8	57.4
Use assignments as a basis for grading students	41.4	41.9	41.3	51.3	40.2	53.5
Use assignments as a basis for lesson planning	50.7	47.8	51.1	47.3	34.2	49.8

[1] Includes elementary teachers whose main assignment was teaching "general elementary" and who taught in both the 1993–94 and 1994–95 school years; therefore, new teachers were not included in this analysis. See the supplemental note to this indicator for further discussion.

[2] Includes those teachers who responded "always" and "often."

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

Note to Indicator 36: The Teacher Follow-up Survey

The Teacher Follow-up Survey (TFS) provides information on teachers' movement within and outside the teaching profession in public and private schools. The TFS is a subsample of teachers in the Schools and Staffing Survey (SASS) and is conducted 1 year after each SASS cycle. The third TFS was conducted in the 1994–95 school year; two previous cycles of the TFS were conducted in school years 1988–89 and 1991–92. The survey identifies and collects data from the following groups of teachers who participated in the SASS interview the previous year: 1) those who remained in the teaching profession, including those who remained in the same school and those who moved to another school; and 2) those who left the teaching profession.

The 1994–95 TFS included questions on teaching methods, such as teachers' use of homework. Respondents to the questions on teaching methods were those teachers who taught in both the 1993–94 and 1994–95 school years; however, while the teachers surveyed taught in both the 1993–94 and 1994–95 school years, the teachers' responses about their teaching methods represent a measure of their actions only in the 1994–95 school year. Since teachers who were surveyed must have taught in both the 1993–94 and 1994–95 school years, they do not represent a random sample of the 1994–95 teacher work force. New teachers in the 1994–95 school year were left out of the survey.

Elementary teachers

The TFS questions asked teachers to identify their main teaching assignment. For *Indicator 36*, the elementary teacher category consists of those teachers who responded that their main teaching assignment was "general elementary." The elementary teacher category excluded those elementary teachers who taught special subject areas, such as art, foreign language, science, or special education.

Grouping of responses

Indicator 36 uses responses from three questions taken from the TFS. These questions concern the type of homework elementary teachers assign, the ways in which elementary teachers use written homework, and the average time students spend on homework.

The question concerning the type of homework assigned asked teachers to "indicate the frequency with which you assigned…over the last semester." For this question, respondents' choices were "almost every day," "once or twice a week," "once or twice a month," "once or twice a semester," or "never." In this analysis, the response categories "almost every day" and "once or twice a week" were combined to represent a typical school week.

The question concerning elementary teachers' use of written homework asked teachers to indicate "how often did you do…in the last semester." For this question, respondents' choices were "always," "often," "sometimes," "rarely," or "never." In this case, the "always" and "often" response categories were combined to calculate percentages on how written homework was used during the previous semester.

Finally, the question regarding the amount of time students spend on homework asked teachers to report the average number of minutes students spent on homework during an average school week.

Table 37-1 Percentage distribution of eighth-grade students who reported spending time outside of school studying or doing homework[1] on a normal day, by country and hours per day: 1995

Country	Less than 1 hour	1 to less than 2 hours	2 to less than 3 hours	3 hours or more
Australia[2]	15	46	22	17
Austria[2]	9	46	21	24
Belgium (Fl)	2	25	28	45
Belgium (Fr)[2]	7	32	21	40
Canada	14	47	18	21
Colombia[2]	2	17	20	61
Cyprus	9	19	26	46
Czech Republic	13	57	17	13
Denmark[2]	39	39	13	9
England[2]	—	—	—	—
France	8	33	28	31
Germany[2]	14	51	18	17
Greece[2]	6	14	21	59
Hong Kong	13	32	25	30
Hungary	4	33	22	41
Iceland	5	46	25	23
Iran, Islamic Republic	1	5	12	82
Ireland	5	29	40	26
Israel[2]	5	36	26	33
Japan	13	39	20	28
Korea	15	32	25	29
Kuwait[2]	3	13	19	65
Latvia (LSS)[2,3]	4	35	32	29
Lithuania[2]	5	39	28	28
Netherlands[2]	3	54	27	16
New Zealand	12	51	21	17
Norway	6	50	24	21
Portugal	3	41	18	38
Romania[2]	9	16	15	60
Russian Federation	4	33	25	38
Scotland[2]	17	54	17	12
Singapore	2	7	13	78
Slovak Republic	6	46	25	23
Slovenia[2]	5	36	21	37
Spain	3	26	18	53
Sweden	7	55	17	21
Switzerland[2]	4	44	19	33
Thailand[2]	3	26	18	54
United States	17	42	17	24

— Not available.

[1] The sum of time students reported having spent studying or doing homework in mathematics, science, and other subjects.

[2] Did not meet international sampling or other guidelines.

[3] Because coverage falls below 65 percent, Latvia is designated LSS for Latvian-Speaking Schools only.

NOTE: In most countries, students classified as eighth-graders are students in the eighth grade; however, for some countries, these students are enrolled in one grade level above the eighth grade. See the supplemental note to *Indicator 20* for further explanation on countries that complied or did not comply with various data collection and sampling guidelines for the TIMSS.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study, 1996, table 4.9.

Table 37-2 Percentage of students who reported watching television, by grade, hours per day, and selected characteristics: 1996

Selected characteristics	Grade 4				Grade 8				Grade 12			
	None	1–2 hours	3–4 hours	5 or more	None	1–2 hours	3–4 hours	5 or more	None	1–2 hours	3–4 hours	5 or more
Total	**2.7**	**42.2**	**28.0**	**27.1**	**1.9**	**38.6**	**38.0**	**21.4**	**3.9**	**57.4**	**28.5**	**10.2**
Sex												
Male	2.6	37.3	29.1	31.0	1.9	36.7	38.5	22.9	3.3	55.2	31.0	10.5
Female	2.8	47.2	26.8	23.2	1.9	40.7	37.5	19.8	4.4	59.4	26.2	9.9
Race/ethnicity												
White	2.8	46.0	29.9	21.2	2.1	44.2	38.4	15.3	4.1	64.2	25.5	6.2
Black	1.7	25.6	21.0	51.7	0.8	16.0	34.8	48.4	1.6	30.0	39.8	28.6
Hispanic	2.4	41.1	27.5	29.0	1.7	35.2	39.8	23.3	4.3	50.4	32.6	12.7
Asian/Pacific Islander	6.5	44.2	23.3	25.9	2.4	35.8	36.2	25.6	4.8	58.1	28.8	8.4
American Indian/ Alaskan Native	1.6	46.3	19.6	32.5	3.0	29.7	37.9	29.4	8.3	46.6	34.4	10.7
Control of school												
Public	2.1	41.3	28.0	28.5	1.6	37.7	38.3	22.4	3.3	57.1	29.0	10.7
Nonpublic	7.1	49.4	27.5	16.1	3.8	46.3	35.9	13.9	8.0	60.5	24.8	6.7
Private only	14.1	55.0	21.4	9.4	7.3	50.7	30.0	12.0	14.3	60.6	19.1	6.0
Catholic only	3.4	46.5	30.5	19.6	1.3	43.2	40.2	15.3	4.7	60.5	27.7	7.1
Parents' highest level of education												
Less than high school diploma	0.4	36.3	23.5	39.8	0.5	29.2	48.5	21.8	2.0	48.0	32.3	17.8
High school graduate	2.0	35.9	31.1	31.0	1.5	31.7	41.8	24.9	2.6	52.9	31.6	12.8
Some college	1.0	39.3	36.1	23.5	1.4	40.7	37.6	20.3	3.8	55.5	29.9	10.7
College graduate	3.5	46.0	26.6	24.0	2.2	45.9	34.6	17.3	4.6	62.6	26.0	6.8
Title I participation												
Participated	2.1	37.3	22.5	38.1	0.9	31.4	35.9	31.8	1.5	50.1	29.2	19.2
Did not participate	2.9	43.6	29.5	24.0	2.0	39.6	38.3	20.1	3.9	57.6	28.5	10.0
Eligibility for free or reduced-price lunch												
Eligible	1.8	34.7	24.8	38.7	1.3	28.3	38.3	32.1	2.9	45.1	31.9	20.1
Not eligible	2.6	43.8	31.0	22.6	2.2	41.4	38.2	18.2	3.6	59.2	28.1	9.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Summary Data Tables: Math*, 1996.

Table 37-3 Percentage of students who reported doing homework, by grade, hours per day, and selected characteristics: 1996

Selected characteristics	Grade 4					Grade 8					Grade 12				
	Don't have	Don't do	1/2 hour or less	1 hour	1 hour or more	Don't have	Don't do	1/2 hour or less	1 hour	1 hour or more	Don't have	Don't do	1/2 hour or less	1 hour	1 hour or more
Total	**11.0**	**3.0**	**40.3**	**29.3**	**16.4**	**6.6**	**7.4**	**24.0**	**36.2**	**25.7**	**13.7**	**7.9**	**22.2**	**27.8**	**28.4**
Sex															
Male	11.8	4.4	40.0	27.7	16.1	7.2	9.6	28.0	34.0	21.1	15.7	13.2	25.2	25.4	20.5
Female	10.2	1.6	40.7	30.9	16.6	6.0	4.9	19.7	38.7	30.8	11.9	3.1	19.5	30.0	35.5
Race/ethnicity															
White	12.6	2.5	39.0	30.7	15.1	6.2	7.0	24.9	37.9	24.0	14.2	8.8	24.0	27.2	25.8
Black	7.4	5.2	43.5	24.5	19.4	7.1	6.5	24.3	32.5	29.7	13.6	5.3	18.2	31.0	31.8
Hispanic	7.8	3.8	42.3	28.1	18.1	9.1	10.6	19.7	33.4	27.2	11.8	6.2	18.9	29.7	33.3
Asian/Pacific Islander	4.8	1.7	41.5	28.8	23.1	4.9	3.6	22.4	28.1	41.0	4.5	5.3	12.0	25.1	53.1
American Indian/ Alaskan Native	14.4	3.0	44.7	24.2	13.6	5.8	19.7	20.5	32.0	22.0	28.1	10.8	21.9	22.7	16.6
Control of school															
Public	11.6	3.2	41.5	28.1	15.6	7.2	7.8	25.0	36.2	23.8	15.0	7.9	22.7	28.0	26.4
Nonpublic	6.1	1.3	31.2	38.4	23.0	2.1	3.4	16.2	36.4	41.9	3.6	8.3	18.2	27.0	42.9
Private only	10.1	0.6	30.8	37.4	21.1	3.7	4.6	21.2	32.0	38.5	6.2	8.3	17.0	21.4	47.0
Catholic only	4.1	1.6	31.3	38.9	24.0	0.9	2.6	12.7	39.5	44.3	2.2	8.2	18.8	29.9	40.8
Parents' highest level of education															
Less than high school diploma	6.8	6.4	42.1	21.7	23.0	12.5	11.6	21.3	35.6	19.0	17.8	5.1	19.5	29.7	28.0
High school graduate	12.2	3.5	42.7	26.8	14.8	7.5	8.9	26.4	36.8	20.4	19.2	7.6	25.6	24.8	22.9
Some college	11.0	1.9	39.7	35.5	11.9	5.9	6.7	28.6	35.0	23.8	16.0	8.0	22.1	30.1	23.7
College graduate	10.5	1.9	39.5	31.5	16.6	4.3	5.1	21.8	38.9	29.9	9.4	7.9	21.5	28.0	33.2
Title I participation															
Participated	9.5	3.8	42.8	27.3	16.6	8.6	9.8	25.0	34.1	22.5	13.5	5.1	16.7	30.9	33.7
Did not participate	11.4	2.8	39.6	29.8	16.3	6.4	7.0	23.9	36.5	26.2	13.7	8.0	22.3	27.8	28.2
Eligibility for free or reduced-price lunch															
Eligible	10.9	5.3	43.1	23.2	17.5	9.7	9.2	23.2	33.6	24.3	18.5	4.9	18.2	30.4	28.0
Ineligible	11.0	2.1	39.3	32.2	15.4	6.1	6.6	25.2	37.3	24.8	14.0	8.1	24.1	26.8	27.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Summary Data Tables: Math*, 1996.

Table 38-1 Percentage of fourth- and eighth-grade students whose teachers reported time spent teaching science, by hours per week and country: 1995

	Fourth grade				Eighth grade			
Country	Less than 1 hour	1 hour to less than 2	2 hours to less than 3	3 hours or more	Less than 2 hours	2 hours to less than 3.5	3.5 hours to less than 5	5 hours or more
Australia[1]	35	55	5	5	(3)	(3)	(3)	(3)
Austria[1]	0	0	97	3	(4)	(4)	(4)	(4)
Belgium(Fl)	—	—	—	—	(4)	(4)	(4)	(4)
Belgium (Fr)[1]	—	—	—	—	(4)	(4)	(4)	(4)
Canada	8	42	27	23	11	69	11	8
Colombia[1]	—	—	—	—	6	75	13	6
Cyprus	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Czech Republic	2	79	3	16	(4)	(4)	(4)	(4)
Denmark[1]	—	—	—	—	(4)	(4)	(4)	(4)
England	6	27	44	23	—	—	—	—
France	—	—	—	—	(4)	(4)	(4)	(4)
Germany[1]	—	—	—	—	(4)	(4)	(4)	(4)
Greece[1]	—	—	—	—	(4)	(4)	(4)	(4)
Hong Kong	13	84	2	1	7	82	9	2
Hungary[1]	6	72	8	14	(4)	(4)	(4)	(4)
Iceland	17	41	30	12	(4)	(4)	(4)	(4)
Iran, Islamic Republic	—	—	—	—	—	—	—	—
Ireland	47	40	11	2	4	94	2	0
Israel[1]	0	53	32	15	19	77	4	0
Japan	2	1	95	2	5	94	0	1
Korea	0	1	95	5	43	51	1	5
Kuwait[1]	0	1	96	4	3	97	1	0
Latvia (LSS)[1,2]	89	5	5	1	(4)	(4)	(4)	(4)
Lithuania	—	—	—	—	(4)	(4)	(4)	(4)
Netherlands[1]	38	44	9	9	(4)	(4)	(4)	(4)
New Zealand	29	48	14	9	1	52	47	0
Norway	73	27	0	0	27	73	1	0
Portugal	2	3	12	84	(4)	(4)	(4)	(4)
Romania[1]	—	—	—	—	(4)	(4)	(4)	(4)
Russian Federation	—	—	—	—	(4)	(4)	(4)	(4)
Scotland[1]	35	44	14	7	14	83	3	0
Singapore	0	4	96	0	0	24	76	0
Slovak Republic	—	—	—	—	(4)	(4)	(4)	(4)
Slovenia[1]	3	60	18	19	(4)	(4)	(4)	(4)
Spain	—	—	—	—	5	84	11	1
Sweden	—	—	—	—	(4)	(4)	(4)	(4)
Switzerland	—	—	—	—	41	37	9	13
Thailand[1]	2	9	17	73	(3)	(3)	(3)	(3)
United States	9	16	33	42	(3)	(3)	(3)	(3)

— Not available.

[1] Did not meet international sampling or other guidelines for the primary and/or middle schools study.

[2] Because coverage falls below 65 percent, Latvia is designated LSS for Latvian-Speaking schools only.

[3] Teacher response data were available for less than 50 percent of the students. Thus, the sample size was too small for a reliable estimate.

[4] Country did not use the integrated science questionnaire, from which numbers of hours in science class for eighth-grade students were measured.

NOTE: In most countries, students classified as eighth-graders are students in the eighth grade; however, for some countries, these students are enrolled in one grade level above the eighth grade. See the supplemental note to *Indicator 20* for further explanation on countries that complied or did not comply with various data collection and sampling guidelines for the TIMSS.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996, table 5.5; *Science Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study*, 1997, table 5.4.

Note to Indicator 38: Instructional time, as measured by the United States for comparability with other OECD countries

For this analysis, "Number of teaching hours per year" is the measure of time that a full-time classroom teacher is responsible for teaching a group or class of students, according to the formal policy of the country in question.

Data for "Number of teaching hours per year" came from the Organization for Economic Cooperation and Development (OECD), *Education at a Glance: OECD Indicators*, 1996. Most countries submitted data to the OECD based on national policy for required number of teaching hours. However, Schools and Staffing Survey (SASS) sample data for the United States (1993–94) were adjusted. Below is a description of how these data were adjusted for comparability with data from other OECD countries.

The estimate began with a SASS 93–94 variable for the response to the School Questionnaire question, "How long is the school day for students?" This number was adjusted first by subtracting 30 minutes for all teachers for lunch. The next adjustment depended on the level of the school, which was defined according to International Standard Classification of Education (ISCED) levels, as follows:

- ISCED 1 (primary). An additional (2.9*60/5) minutes were subtracted to adjust for teachers' planning time. The National Education Association's *Status of the American Public School Teacher*, 1990–91 reported that elementary teachers average 2.9 hours a week for preparation. This number is multiplied by 60 to calculate minutes per week, and is then divided by 5 to calculate minutes per day.
- ISCED 2 (lower secondary). An additional 48 minutes for preparation were subtracted. This figure is based on an estimate for 8th-grade teachers from the National Education Longitudinal Study of 1988 (NELS:88) Base Year.
- ISCED 3 (upper secondary). An additional 51 minutes were subtracted for preparation, based on an estimate for 10th-grade teachers, from the NELS:88 First Follow-Up.

These adjustments produced data for teaching hours per day, which were then multiplied by average days per year to reach an adjusted statistic for "number of teaching hours per year," compared to other OECD countries.

Note to Indicator 40: Definition of teacher level

The Schools and Staffing Survey (SASS) teacher level is a variable that describes the level of students taught by a teacher at their school. Teacher level can be classified as either "elementary" or "secondary" based on the grade levels of students taught, the main teaching assignment of the teacher, the class structures taught by the teacher, and the subjects taught by the teacher.

For this analysis, elementary teachers include those teachers who:

- teach students who are ungraded or whose highest grade level is grade 5;
- teach students in prekindergarten through grade 8 and have a main teaching assignment of prekindergarten, kindergarten, or general elementary;
- teach students in grades 1–6, and who teach the subjects of general elementary, special elementary, or other elementary;
- teach students in grades 1–12, but who have the majority of their students in grades 1–6;
- teach students in grades 1–12, and teach the subjects of general elementary, special elementary, or other elementary;
- teach the subjects of general elementary, special elementary, and other elementary classes to graded and ungraded levels of students;
- have a main teaching assignment in special education and teach elementary enrichment classes;
- have a main teaching assignment in special education who teach the subjects of general elementary, special elementary, and other elementary; and
- teachers who teach in pull-out class structures.

Secondary teachers include those teachers who:

- teach students in grades 5–9 and no other grades;
- teach students in grades 9–12 or postsecondary students;
- teach students in grades 7–12 who teach the subjects of mathematics, science, English, social studies, vocational/technical, special secondary education, and other secondary;
- teach students in grades 1–12, but who have the majority of their students in grades 7–12;
- teach students in grades 7–12 who teach the subjects of mathematics, science, English, social studies, vocational/technical, special secondary education, and other secondary;
- teach students in grades 1–6 and 7–12, but who teach the subjects of mathematics, science, English, social studies, vocational/technical, special secondary education, and other secondary classes;
- teach mathematics, science, English, social studies, vocational/technical, special secondary education, and other secondary classes to ungraded students;
- have a main teaching assignment in special education who teach the subjects of mathematics, science, English, social studies, vocational/technical, special secondary education, and other secondary;
- teach in most departmentalized class structures.

Table 42-1 Elementary and secondary school enrollment (in thousands), by control and level of school, with projections: Fall 1970–2008

		Public schools			Private schools[1]		
Fall of year	Total	Grades PreK–12	Grades PreK–8	Grades 9–12	Grades PreK–12	Grades PreK–8	Grades 9–12
1970	51,257	45,894	32,558	13,336	5,363	4,052	1,311
1971	51,271	46,071	32,318	13,753	5,200	3,900	1,300
1972	50,726	45,726	31,879	13,848	5,000	3,700	1,300
1973	50,445	45,445	31,401	14,044	5,000	3,700	1,300
1974	50,073	45,073	30,971	14,103	5,000	3,700	1,300
1975	49,819	44,819	30,515	14,304	5,000	3,700	1,300
1976	49,478	44,311	29,997	14,314	5,167	3,825	1,342
1977	48,717	43,577	29,375	14,203	5,140	3,797	1,343
1978	47,637	42,551	28,463	14,088	5,086	3,732	1,353
1979	46,651	41,651	28,034	13,616	5,000	3,700	1,300
1980	46,208	40,877	27,647	13,231	5,331	3,992	1,339
1981	45,544	40,044	27,280	12,764	5,500	4,100	1,400
1982	45,166	39,566	27,161	12,405	5,600	4,200	1,400
1983	44,967	39,252	26,981	12,271	5,715	4,315	1,400
1984	44,908	39,208	26,905	12,304	5,700	4,300	1,400
1985	44,979	39,422	27,034	12,388	5,557	4,195	1,362
1986	45,205	39,753	27,420	12,333	5,452	4,116	1,336
1987	45,488	40,008	27,933	12,076	5,479	4,232	1,247
1988	45,430	40,189	28,501	11,687	5,241	4,036	1,206
1989	45,898	40,543	29,152	11,390	5,355	4,162	1,193
1990	46,448	41,217	29,878	11,338	5,232	4,095	1,137
1991	47,246	42,047	30,506	11,541	5,199	4,074	1,125
1992	48,198	42,823	[2]31,088	11,735	5,375	4,212	1,163
1993	48,936	43,465	31,504	11,961	5,471	4,280	1,191
1994	[2]49,707	[2]44,111	[2]31,898	[2]12,213	5,596	4,360	1,236
1995[3]	[2]50,528	[2]44,840	[2]32,341	[2]12,500	[2]5,688	[2]4,427	[2]1,260
1996[4]	51,484	45,700	32,826	12,874	5,784	4,490	1,293
1997[4]	[2]52,217	[2]46,353	[2]33,216	[2]13,138	5,863	4,544	1,320
				Projected[5]			
1998	52,718	46,792	33,522	13,270	5,927	4,588	1,339
1999	53,112	47,143	33,722	13,420	5,970	4,616	1,354
2000	53,445	47,439	33,903	13,537	6,006	4,640	1,366
2001	53,736	47,698	34,055	13,643	6,038	4,661	1,376
2002	53,987	47,924	34,124	13,800	6,063	4,671	1,392
2003	54,153	48,075	34,124	13,951	6,078	4,671	1,407
2004	54,308	48,221	33,958	14,263	6,087	4,648	1,439
2005	54,426	48,335	33,756	14,579	6,091	4,620	1,471
2006	54,457	48,368	33,584	14,785	6,088	4,597	1,491
2007	54,425	48,342	33,489	14,854	6,082	4,584	1,498
2008	54,268	48,201	33,455	14,746	6,067	4,579	1,488

[1] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[2] Estimates based on preliminary data.

[3] Revised from previously published figures.

[4] Projected.

[5] Enrollment includes students in kindergarten through grade 12, and some nursery school students.

NOTE: The private school enrollment figures for years 1971–75, 1979, 1981–82, 1984, and 1986 are estimated. The 1987 private school enrollment numbers are taken from the Private School Survey (PSS). Private school enrollment figures for grades preK–8 and 9–12 for the years 1988–93 are estimated from the preK–12 totals. Projections are based on data through 1995. Enrollment figures may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, table 3 (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998, table 1.

Table 42-2 Percentage of total elementary and secondary school enrollment, by control and level of school, with projections: Fall 1970–2008

		Public schools			Private schools[1]		
Fall of year	Total	Grades PreK–12	Grades PreK–8	Grades 9–12	Grades PreK–12	Grades PreK–8	Grades 9–12
1970	100.0	89.5	63.5	26.0	10.5	7.9	2.6
1971	100.0	89.9	63.0	26.8	10.1	7.6	2.5
1972	100.0	90.1	62.8	27.3	9.9	7.3	2.6
1973	100.0	90.1	62.2	27.8	9.9	7.3	2.6
1974	100.0	90.0	61.9	28.2	10.0	7.4	2.6
1975	100.0	90.0	61.3	28.7	10.0	7.4	2.6
1976	100.0	89.6	60.6	28.9	10.4	7.7	2.7
1977	100.0	89.4	60.3	29.2	10.6	7.8	2.8
1978	100.0	89.3	59.7	29.6	10.7	7.8	2.8
1979	100.0	89.3	60.1	29.2	10.7	7.9	2.8
1980	100.0	88.5	59.8	28.6	11.5	8.6	2.9
1981	100.0	87.9	59.9	28.0	12.1	9.0	3.1
1982	100.0	87.6	60.1	27.5	12.4	9.3	3.1
1983	100.0	87.3	60.0	27.3	12.7	9.6	3.1
1984	100.0	87.3	59.9	27.4	12.7	9.6	3.1
1985	100.0	87.6	60.1	27.5	12.4	9.3	3.0
1986	100.0	87.9	60.7	27.3	12.1	9.1	3.0
1987	100.0	88.0	61.4	26.5	12.0	9.3	2.7
1988	100.0	88.5	62.7	25.7	11.5	8.9	2.7
1989	100.0	88.3	63.5	24.8	11.7	9.1	2.6
1990	100.0	88.7	64.3	24.4	11.3	8.8	2.4
1991	100.0	89.0	64.6	24.4	11.0	8.6	2.4
1992	100.0	88.8	64.5	24.3	11.2	8.7	2.4
1993	100.0	88.8	64.4	24.4	11.2	[3]8.7	2.4
1994	100.0	88.7	64.2	24.6	11.3	8.8	2.5
1995[2]	100.0	88.7	[3]64.0	[3]24.7	11.3	8.8	2.5
1996[4]	100.0	88.8	63.8	25.0	11.2	8.7	2.5
1997[4]	100.0	88.8	63.6	25.2	11.2	8.7	2.5
				Projected[5]			
1998	100.0	88.8	63.6	25.2	11.2	8.7	2.5
1999	100.0	88.8	63.5	25.3	11.2	8.7	2.5
2000	100.0	88.8	63.4	25.3	11.2	8.7	2.6
2001	100.0	88.8	63.4	25.4	11.2	8.7	2.6
2002	100.0	88.8	63.2	25.6	11.2	8.7	2.6
2003	100.0	88.8	63.0	25.8	11.2	8.6	2.6
2004	100.0	88.8	62.5	26.3	11.2	8.6	2.6
2005	100.0	88.8	62.0	26.8	11.2	8.5	2.7
2006	100.0	88.8	61.7	27.1	11.2	8.4	2.7
2007	100.0	88.8	61.5	27.3	11.2	8.4	2.8
2008	100.0	88.8	61.6	27.2	11.2	8.4	2.7

[1] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[2] Estimates based on preliminary data.

[3] Revised from previously published figures.

[4] Projected.

[5] Enrollment includes students in kindergarten through grade 12 and some nursery school students.

NOTE: The private school enrollment figures for years 1971–75, 1979, 1981–82, 1984, and 1986 are estimated. The 1987 private school enrollment numbers are taken from the Private School Survey (PSS). Private school enrollment figures for grades preK–8 and 9–12 for the years 1988–93 are estimated from the preK–12 totals. Projections are based on data through 1995. Percentages may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997, table 3* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998, table 1.

Table 42-3 Public elementary and secondary school enrollment (in thousands), by region: Fall 1970–96

	United States	Northeast		Midwest		South		West	
Fall of year	Total number	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1970	45,894	9,859	21.5	12,935	28.2	14,759	32.2	8,339	18.2
1971	46,071	9,971	21.6	12,969	28.2	14,777	32.1	8,352	18.1
1972	45,726	9,961	21.8	12,868	28.1	14,632	32.0	8,262	18.1
1973	45,445	9,848	21.7	12,666	27.9	14,677	32.3	8,252	18.2
1974	45,073	9,755	21.6	12,510	27.8	14,626	32.5	8,180	18.2
1975	44,819	9,679	21.6	12,294	27.4	14,654	32.7	8,190	18.3
1976	43,311	9,464	21.9	12,097	27.9	14,578	33.7	8,171	18.9
1977	43,577	9,156	21.0	11,763	27.0	14,560	33.4	8,096	18.6
1978	42,551	8,828	20.7	11,320	26.6	14,431	33.9	7,970	18.7
1979	41,651	8,479	20.4	11,031	26.5	14,258	34.2	7,881	18.9
1980	40,877	8,215	20.1	10,698	26.2	14,134	34.6	7,831	19.2
1981	40,044	7,891	19.7	10,372	25.9	13,990	34.9	7,791	19.5
1982	39,566	7,674	19.4	10,139	25.6	13,945	35.2	7,807	19.7
1983	39,252	7,513	19.1	9,986	25.4	13,914	35.4	7,839	20.0
1984	39,208	7,395	18.9	9,889	25.2	13,963	35.6	7,961	20.3
1985	39,422	7,318	18.6	9,862	25.0	14,117	35.8	8,124	20.6
1986	39,753	7,294	18.3	9,871	24.8	14,312	36.0	8,276	20.8
1987	40,008	7,252	18.1	9,870	24.7	14,419	36.0	8,468	21.2
1988	40,189	7,208	17.9	9,846	24.5	14,491	36.1	8,644	21.5
1989	40,543	7,200	17.8	9,849	24.3	14,605	36.0	8,889	21.9
1990	41,217	7,282	17.7	9,944	24.1	14,807	35.9	9,184	22.3
1991	42,047	7,407	17.6	10,080	24.0	15,021	35.7	9,479	22.5
1992	42,823	7,526	17.6	10,198	23.8	15,357	35.9	9,742	22.7
1993	43,465	7,654	17.6	10,289	23.7	15,591	35.9	9,931	22.8
1994[1]	44,111	7,760	17.6	10,386	23.5	15,851	35.9	10,114	22.9
1995[1]	44,840	7,894	17.6	10,512	23.4	16,118	35.9	10,316	23.0
1996[2]	45,229	7,984	17.7	10,577	23.4	16,283	36.0	10,420	23.0

[1] Revised from previously published figures.

[2] Data estimated by state education agencies.

NOTE: Enrollment figures and percentages may not add to totals due to rounding. Enrollment includes students in kindergarten through grade 12 and some nursery school students. The regions of the United States used for this analysis were designated by the Bureau of the Census in the Current Population Survey (CPS). The regions and their states follow:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, table 40 (based on the Common Core of Data).

Table 43-1 Percentage distribution of enrollment in public elementary and secondary schools, by race/ethnicity: 1976–95

Race/ethnicity	1976	1984	1986	1988	1990	1992*	1993*	1994*	1995*	1976–95
										Change in percentage points
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	—
White, non-Hispanic	76.0	71.2	70.4	70.7	67.8	66.7	66.1	65.6	64.8	-11.2
Total minority	24.0	28.8	29.6	29.3	32.1	33.3	34.0	34.4	35.1	11.1
Black, non-Hispanic	15.5	16.2	16.1	15.2	16.2	16.5	16.6	16.7	16.8	1.3
Hispanic	6.4	9.1	9.9	10.1	11.5	12.3	12.7	13.0	13.5	7.1
Asian/Pacific Islander	1.2	2.5	2.8	3.1	3.4	3.5	3.6	3.6	3.7	2.5
American Indian/Alaskan Native	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1	0.3

— Not applicable.

* Data are from the Common Core of Data (CCD) survey.

NOTE: Data shown in this table are taken from surveys other than the Current Population Surveys (CPS) and are not comparable to the data in other tables of this analysis. Enrollment includes kindergarten students and a small number of prekindergarten students. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, Office for Civil Rights, Elementary and Secondary School Civil Rights Survey, 1976, 1984, 1986, 1988, and 1990; National Center for Education Statistics, Common Core of Data Survey, 1992; and *Digest of Education Statistics, 1995, 1996, and 1997*, table 45.

Table 44-1 Family characteristics of 15- to 18-year-olds: 1972–97

Selected family characteristics	1972	1977	1982	1987	1992	1997
Race/ethnicity of young adults						
White	81.9	80.0	76.7	73.9	71.0	68.5
Black	12.2	13.0	14.0	14.2	14.2	14.3
Hispanic	4.9	5.4	7.0	8.5	10.7	12.6
Other	1.1	1.6	2.3	3.3	4.1	4.6
Mother's highest education level						
Less than high school diploma	38.4	32.5	28.1	22.6	18.7	17.0
High school diploma or GED	44.5	46.5	47.0	46.6	40.2	37.1
Some college	10.0	11.9	14.4	17.8	25.3	26.9
Bachelor's degree or higher	7.1	9.1	10.6	12.9	15.7	19.1
Father's highest education level						
Less than high school diploma	41.0	33.2	28.4	21.4	16.5	16.1
High school diploma or GED	33.5	35.5	36.0	37.2	34.5	31.9
Some college	10.6	12.9	15.0	16.8	23.6	26.1
Bachelor's degree or higher	15.0	18.4	20.6	24.6	25.5	25.9
Mother's employment status						
Employed	48.6	53.0	59.0	65.3	69.4	73.4
Unemployed, looking for work	2.2	3.7	4.9	3.8	4.5	3.2
Not in labor force	49.3	43.3	36.2	30.8	26.1	23.4
Father's employment status						
Employed	91.8	88.6	86.7	88.7	88.2	89.3
Unemployed, looking for work	2.5	3.9	5.3	4.4	5.0	3.1
Not in labor force	5.7	7.5	8.0	7.0	6.8	7.5
Family type						
Two-parent household	84.3	80.1	75.7	73.6	72.5	71.2
Father as head of household	2.0	2.6	2.9	3.6	3.9	5.0
Mother as head of household	13.7	17.3	21.4	22.8	23.6	23.8
Number of other children in household						
0–1	39.8	45.6	50.9	59.8	61.9	62.6
2–3	39.4	38.6	39.1	34.1	32.1	31.9
4 or more	20.8	15.9	10.0	6.1	6.1	5.5
Age of mother at child's birth						
Under 20	9.2	12.0	12.8	13.8	14.5	11.1
20–24	29.3	31.5	32.8	34.3	31.9	30.9
25–29	29.1	26.1	27.0	28.2	32.9	33.1
30 or older	32.4	30.4	27.4	23.7	20.8	24.9
Median family income (in 1997 constant dollars)	$47,746	$48,214	$44,502	$47,219	$45,670	$47,420

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 44-2 Family characteristics of white 15- to 18-year-olds: 1972–97

Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	32.3	26.3	20.6	15.7	11.0	8.3
High school diploma or GED	48.9	50.5	51.6	49.7	43.2	39.3
Some college	10.8	13.1	15.7	20.0	28.1	29.6
Bachelor's degree or higher	8.0	10.0	12.0	14.5	17.8	22.8
Father's highest education level						
Less than high school diploma	35.7	28.4	22.9	16.4	11.2	9.7
High school diploma or GED	36.2	37.6	38.3	38.9	35.9	32.5
Some college	11.4	13.5	15.8	17.5	25.1	28.5
Bachelor's degree or higher	16.7	20.4	23.0	27.2	27.9	29.4
Mother's employment status						
Employed	49.1	53.8	60.8	67.5	73.4	77.5
Unemployed, looking for work	2.1	3.3	4.0	3.3	3.7	2.6
Not in labor force	48.8	42.8	35.2	29.2	22.9	19.9
Father's employment status						
Employed	92.6	90.3	88.4	90.5	90.0	91.0
Unemployed, looking for work	2.3	3.6	5.1	3.5	4.3	2.3
Not in labor force	5.0	6.1	6.5	6.0	5.7	6.6
Family type						
Two-parent household	88.1	84.8	81.0	79.4	79.4	78.1
Father as head of household	1.8	2.5	2.9	3.6	3.9	5.3
Mother as head of household	10.1	12.6	16.1	16.9	16.7	16.5
Number of siblings in family						
0–1	43.1	46.8	54.9	63.8	66.1	66.8
2–3	40.0	39.4	37.9	32.1	29.8	29.3
4 or more	16.9	13.9	7.3	4.1	4.2	3.9
Age of mother at child's birth						
Under 20	8.0	10.3	10.6	10.9	12.4	8.3
20–24	29.0	32.1	33.4	35.3	30.8	30.3
25–29	29.7	26.5	28.5	30.5	36.0	35.8
30 or older	33.3	31.1	27.5	23.3	20.8	25.6
Median family income (in 1997 constant dollars)	$51,599	$52,706	$49,944	$53,326	$52,333	$55,364

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 44-3 Family characteristics of black 15- to 18-year-olds: 1972–97

Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	64.4	55.2	46.5	35.3	26.4	22.2
High school diploma or GED	26.4	31.9	35.7	44.3	40.4	39.9
Some college	6.0	7.0	12.0	13.5	23.0	28.2
Bachelor's degree or higher	3.2	5.9	5.8	6.9	10.2	9.7
Father's highest education level						
Less than high school diploma	73.8	60.2	49.9	34.6	20.7	20.9
High school diploma or GED	17.3	26.6	30.2	39.7	38.9	44.7
Some college	6.0	9.0	13.2	15.4	24.5	22.8
Bachelor's degree or higher	2.9	4.1	6.8	10.3	16.0	11.6
Mother's employment status						
Employed	50.7	52.0	56.9	62.9	63.0	69.2
Unemployed, looking for work	3.0	5.9	8.8	5.8	6.5	4.7
Not in labor force	46.3	42.2	34.4	31.3	30.5	26.1
Father's employment status						
Employed	85.4	79.3	75.9	80.9	82.8	83.9
Unemployed, looking for work	4.0	3.9	6.2	7.2	6.2	5.0
Not in labor force	10.6	16.8	17.9	11.9	10.9	11.1
Family type						
Two-parent household	62.1	52.4	48.7	44.7	42.5	39.7
Father as head of household	3.1	3.1	2.3	2.8	3.6	4.7
Mother as head of household	34.8	44.5	49.0	52.4	53.8	55.6
Number of siblings in family						
0–1	25.6	42.4	39.8	51.8	55.6	56.6
2–3	35.0	33.0	43.4	37.2	36.6	35.1
4 or more	39.4	24.6	16.9	11.0	7.8	8.3
Age of mother at child's birth						
Under 20	16.6	22.6	23.5	27.0	24.2	22.2
20–24	30.0	28.4	32.2	32.5	35.4	34.2
25–29	24.2	22.9	19.8	19.1	23.1	25.4
30 or older	29.1	26.0	24.4	21.5	17.3	18.3
Median family income (in 1997 constant dollars)	$28,927	$28,415	$25,836	$26,835	$27,473	$29,505

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 44-4 Family characteristics of Hispanic 15- to 18-year-olds: 1972–97

Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	76.5	68.9	68.0	58.8	58.9	54.6
High school diploma or GED	15.8	23.7	23.9	29.2	24.0	24.6
Some college	5.7	4.9	6.0	8.1	12.9	14.3
Bachelor's degree or higher	2.0	2.5	2.1	4.0	4.2	6.5
Father's highest education level						
Less than high school diploma	76.0	63.7	64.6	57.8	54.2	53.7
High school diploma or GED	14.0	19.3	20.8	22.7	22.9	20.8
Some college	5.6	8.9	8.6	11.6	14.0	16.2
Bachelor's degree or higher	4.4	8.1	6.1	8.0	8.8	9.3
Mother's employment status						
Employed	31.5	43.3	41.8	48.2	51.6	56.0
Unemployed, looking for work	2.6	4.5	6.6	5.4	7.4	4.8
Not in labor force	65.9	52.2	51.6	46.4	41.0	39.1
Father's employment status						
Employed	89.5	79.0	83.3	80.6	81.9	84.8
Unemployed, looking for work	3.2	8.2	6.4	8.7	9.1	5.9
Not in labor force	7.3	12.7	10.2	10.7	9.0	9.3
Family type						
Two-parent household	76.7	76.1	71.4	68.5	64.1	67.1
Father as head of household	1.9	1.8	2.2	3.7	4.1	4.2
Mother as head of household	21.4	22.1	26.3	27.8	31.8	28.7
Number of siblings in family						
0–1	23.5	40.0	35.4	42.9	42.7	47.2
2–3	39.4	39.0	40.0	43.8	42.0	43.1
4 or more	37.1	21.0	24.5	13.4	15.3	9.7
Age of mother at child's birth						
Under 20	12.1	13.4	17.0	17.9	18.2	16.2
20–24	33.4	30.1	30.2	32.8	33.7	33.3
25–29	27.8	27.7	24.8	24.2	26.1	27.7
30 or older	26.7	28.7	28.0	25.2	22.0	22.8
Median family income						
(in 1997 constant dollars)	$32,351	$33,535	$29,981	$28,611	$28,617	$28,880

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 22* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Note to Indicator 44: Family characteristics of 15- to 18-year-olds: 1972–97

Data on family characteristics of 15- to 18-year-olds were taken from the March Current Population Surveys (CPS). The March CPS is a hierarchical data file with three levels of information: household, family, and person. Some information used in this analysis, such as family income or family type, was obtained from family level and then retained/passed on to the person level. Information about parents were obtained by linking parents' records with their children's records using common variables, such as household ID, parent ID, spouse ID, and person IDs at various steps. Before the merging process began, an extract file, which included information from both household and family levels, was created for each individual (at the person level). During the merge, three temporary data sets were created using the extract file: head of household, spouses of the head, and children in the household. Records for head of household were first linked to records of spouses of head of household to create one file of parents' records containing information for both parents. Then, the children's records were merged with the parent records using common codes between the files, such as household ID, parent ID, and person ID. This merging process allowed information such as parents' education level and parents' employment status to be linked to children's files.

Family type

Information on family type, which originated at the family level, was taken from the parents' records and was linked to the children's records. The original family type categories were "husband and wife family," "male head," and "female head." When the parent information was merged with the children's records, these categories changed to "both parents," "father as head of household," and "mother as head of household," so that family type was in reference to the children rather than the parents.

Age of mother at child's birth

For this analysis, the age of the mother at the time of her child's birth was computed by subtracting the child's age from his or her biological, adoptive, or foster mother's or female guardian's age.

Number of other children in household

Number of siblings in the family was calculated by adding the total number of children in each family, and subtracting one (for the child in reference) from the total.

Mother's or father's highest education level

A parent's highest education level was obtained by merging the information from the parent's records with their children's records. The percentage distribution of mother's and father's highest education level was calculated based only on children who live with their parents. For example, the percentage distribution for mother's highest education level was calculated based on children who live with "both parents" and who live with "mother only." For children who live with only their father, their mother's education level was unknown; therefore, those in this "unknown" group were excluded from this section of the analysis.

Employment status of parents

Information on the employment status of parents was computed similarly as those for the parents' highest education level.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys, unpublished tabulations.

Table 45-1 Number of children from birth to age 21 who were served by federally supported programs for students with disabilities, by type of disability: School years ending 1977–96

Type of disability	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
	Number served (in thousands)									
All disabilities	**3,692**	**3,751**	**3,889**	**4,005**	**4,142**	**4,198**	**4,255**	**4,298**	**4,315**	**4,317**
Specific learning disabilities	796	964	1,130	1,276	1,462	1,622	1,741	1,806	1,832	1,862
Speech or language impairments	1,302	1,223	1,214	1,186	1,168	1,135	1,131	1,128	1,126	1,125
Mental retardation	959	933	901	869	829	786	757	727	694	660
Serious emotional disturbance	283	288	300	329	346	339	352	361	372	375
Hearing impairments	87	85	85	80	79	75	73	72	69	66
Orthopedic impairments	87	87	70	66	58	58	57	56	56	57
Other health impairments	141	135	105	106	98	79	50	53	68	57
Visual impairments	38	35	32	31	31	29	28	29	28	27
Multiple disabilities	—	—	50	60	68	71	63	65	69	86
Deaf-blindness	—	—	2	2	3	2	2	2	2	2
Preschool disabled[1]	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

Type of disability	1987	1988	1989	1990	1991	1992	1993	1994[3]	1995[3]	1996
	Number served (in thousands)									
All disabilities	**4,374**	**4,447**	**4,544**	**4,641**	**4,762**	**4,949**	**5,125**	**5,309**	**5,378**	**5,573**
Specific learning disabilities	1,914	1,928	1,987	2,050	2,130	2,234	2,354	2,408	2,489	2,579
Speech or language impairments	1,136	953	967	973	985	997	996	1,014	1,015	1,022
Mental retardation	643	582	564	548	534	538	519	536	555	570
Serious emotional disturbance	383	373	376	381	390	399	401	414	427	438
Hearing impairments	65	56	56	57	58	60	60	64	64	67
Orthopedic impairments	57	47	47	48	49	51	52	56	60	63
Other health impairments	52	45	43	52	55	58	65	82	106	133
Visual impairments	26	22	23	22	23	24	23	24	24	25
Multiple disabilities	97	77	85	86	96	97	102	108	88	93
Deaf-blindness	2	1	2	2	1	1	1	1	1	1
Preschool disabled[1]	(2)	363	394	422	441	484	531	578	519	544

— Not available.

[1] Includes preschool children ages 3–5 who were served under Chapter 1 of the Education Consolidation and Improvement Act (ECIA) and those ages 0–5 who were served under Part B of the Individuals with Disabilities Education Act (IDEA).

[2] Beginning in the 1987–88 school year, states were no longer required to report preschool students (ages 0–5) with disabilities by disabling condition.

[3] Revised from previously published figures.

NOTE: This analysis includes students who were served under Chapter 1 of the ECIA and Part B of IDEA. Counts are based on reports from the 50 states and the District of Columbia only (i.e., figures from the U.S. territories are not included). Increases since 1987–88 are due in part to new legislation enacted in fall 1986, which mandates that public schools appropriate education services for all disabled children ages 3–5. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years, and unpublished tabulations; and National Center for Education Statistics, Common Core of Data Survey.

Table 45-2 Percentage of public school children ages 6–21 with disabilities who were served in various school environments, by type of disability: School years ending 1986–95

Type of disability	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
	Regular class/resource room combined in regular school building									
All disabilities	**69.0**	**69.2**	**69.0**	**69.6**	**69.2**	**69.3**	**71.2**	**71.5**	**72.9**	**73.2**
Specific learning disabilities	77.8	76.8	76.7	77.5	76.8	76.2	78.8	78.7	80.4	80.7
Speech or language impairments	94.7	93.9	94.6	94.6	94.6	92.8	94.6	92.5	95.1	95.1
Mental retardation	28.8	29.8	29.2	28.0	26.5	30.4	30.5	33.9	34.7	36.8
Serious emotional disturbance	44.1	46.0	45.5	44.2	43.5	45.9	43.6	46.3	46.2	46.1
Hearing impairments	43.8	46.9	45.4	48.2	45.3	46.6	47.6	49.2	50.5	54.4
Orthopedic impairments	48.0	47.5	45.7	47.8	48.6	51.7	53.4	55.1	58.1	59.7
Other health impairments	47.6	59.0	51.5	50.3	53.4	57.8	62.9	67.4	67.1	71.5
Visual impairments	62.6	62.3	63.1	65.0	62.8	65.3	60.8	66.6	66.4	67.0
Multiple disabilities	20.6	24.3	20.1	21.4	20.5	23.8	24.3	26.7	28.8	20.8
Deaf-blindness	26.0	26.1	15.2	17.0	24.6	16.9	12.1	22.0	15.7	18.1
	Separate class in regular school building									
All disabilities	**24.4**	**24.8**	**24.7**	**24.2**	**24.9**	**25.1**	**23.5**	**23.5**	**22.7**	**22.5**
Specific learning disabilities	20.8	21.2	21.8	21.0	21.7	22.4	20.1	20.1	18.8	18.4
Speech or language impairments	3.7	4.1	3.8	3.8	3.8	5.6	3.9	6.0	4.5	4.5
Mental retardation	57.3	58.4	58.0	58.3	61.1	58.3	59.2	56.8	57.0	55.9
Serious emotional disturbance	36.1	36.8	34.5	35.8	37.1	35.8	36.9	35.2	35.3	35.2
Hearing impairments	32.5	32.9	35.1	33.4	31.7	32.8	31.3	28.1	30.6	28.6
Orthopedic impairments	31.0	33.4	32.0	33.7	34.7	33.1	34.4	34.1	33.3	31.7
Other health impairments	24.8	19.9	18.8	19.6	24.6	26.3	21.5	20.6	21.3	18.5
Visual impairments	19.2	21.9	21.0	20.6	21.1	19.9	19.6	18.0	18.3	17.2
Multiple disabilities	44.5	48.2	46.6	46.8	43.7	42.8	47.1	44.6	44.1	51.3
Deaf-blindness	22.2	37.5	36.9	29.6	29.9	32.0	36.5	31.4	34.2	36.2

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Nineteenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, table AB2.

Table 46-1 Percentage of high school seniors who reported using alcohol or drugs any time during the previous year, by type of drug: School years 1975–97

Type of drug	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alcohol	84.8	85.7	87.0	87.7	88.1	87.9	87.0	86.8	87.3	86.0	85.6	84.5
Marijuana	40.0	44.5	47.6	50.2	50.8	48.8	46.1	44.3	42.3	40.0	40.6	38.8
Any illicit drug other than marijuana	26.2	25.4	26.0	27.1	28.2	30.4	34.0	30.1	28.4	28.0	27.4	25.9
Stimulants	16.2	15.8	16.3	17.1	18.3	20.8	26.0	20.3	17.9	17.7	15.8	13.4
LSD	7.2	6.4	5.5	6.3	6.6	6.5	6.5	6.1	5.4	4.7	4.4	4.5
Cocaine	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5	11.4	11.6	13.1	12.7
Sedatives	11.7	10.7	10.8	9.9	9.9	10.3	10.5	9.1	7.9	6.6	5.8	5.2
Tranquilizers	10.6	10.3	10.8	9.9	9.6	8.7	8.0	7.0	6.9	6.1	6.1	5.8
Inhalants	—	3.0	3.7	4.1	5.4	4.6	4.1	4.5	4.3	5.1	5.7	6.1

Type of drug	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alcohol	85.7	85.3	82.7	80.6	77.7	76.8	*72.7	*73.0	*73.7	*72.5	*74.8
Marijuana	36.3	33.1	29.6	27.0	23.9	21.9	26.0	30.7	34.7	35.8	38.5
Any illicit drug other than marijuana	24.1	21.1	20.0	17.9	16.2	14.9	17.1	18.0	19.4	19.8	20.7
Stimulants	12.2	10.9	10.8	9.1	8.2	7.1	8.4	9.4	9.3	9.5	10.2
LSD	5.2	4.8	4.9	5.4	5.2	5.6	6.8	6.9	8.4	8.8	8.4
Cocaine	10.3	7.9	6.5	5.3	3.5	3.1	3.3	3.6	4.0	4.9	5.5
Sedatives	4.1	3.7	3.7	3.6	3.6	2.9	3.4	4.2	4.9	5.3	5.4
Tranquilizers	5.5	4.8	3.8	3.5	3.6	2.8	3.5	3.7	4.4	4.6	4.7
Inhalants	6.9	6.5	5.9	6.9	6.6	6.2	7.0	7.7	8.0	7.6	6.7

— Not available.

* In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1997 may not be comparable to earlier years. For example, in 1993, the original wording produced an estimate of 76 percent for alcohol use. The new wording produced an estimate of 73 percent.

NOTE: Only drug use not under a doctor's orders is included.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table 46-2 Percentage of students who reported using alcohol or drugs any time during the previous 30 days, by type of drug and grade: School years 1991–97

Type of drug and grade	1991	1992	1993	1994	1995	1996	1997
Alcohol							
8th-graders	25.1	26.1	*24.3	*25.5	*24.6	*26.2	*24.5
10th-graders	42.8	39.9	*38.2	*39.2	*38.8	*40.4	*40.1
12th-graders	54.0	51.3	*48.6	*50.1	*51.3	*50.8	*52.7
Marijuana/hashish							
8th-graders	3.2	3.7	5.1	7.8	9.1	11.3	10.2
10th-graders	8.7	8.1	10.9	15.8	17.2	20.4	20.5
12th-graders	13.8	11.9	15.5	19.0	21.2	21.9	23.7
Any illicit drug other than marijuana							
8th-graders	3.8	4.7	5.3	5.6	6.5	6.9	6.0
10th-graders	5.5	5.7	6.5	7.1	8.9	8.9	8.8
12th-graders	7.1	6.3	7.9	8.8	10.0	9.5	10.7
Stimulants							
8th-graders	2.6	3.3	3.6	3.6	4.2	4.6	3.8
10th-graders	3.3	3.6	4.3	4.5	5.3	5.5	5.1
12th-graders	3.2	2.8	3.7	4.0	4.0	4.1	4.8
LSD							
8th-graders	0.6	0.9	1.0	1.1	1.4	1.5	1.5
10th-graders	1.5	1.6	1.6	2.0	3.0	2.4	2.8
12th-graders	1.9	2.0	2.4	2.6	4.0	2.5	3.1
Cocaine							
8th-graders	0.5	0.7	0.7	1.0	1.2	1.3	1.1
10th-graders	0.7	0.7	0.9	1.2	1.7	1.7	2.0
12th-graders	1.4	1.3	1.3	1.5	1.8	2.0	2.3
Tranquilizers							
8th-graders	0.8	0.8	0.9	1.1	1.2	1.5	1.2
10th-graders	1.2	1.5	1.1	1.5	1.7	1.7	2.2
12th-graders	1.4	1.0	1.2	1.4	1.8	2.0	1.8
Cigarettes							
8th-graders	14.3	15.5	16.7	18.6	19.1	21.0	19.4
10th-graders	20.8	21.5	24.7	25.4	27.9	30.4	29.8
12th-graders	28.3	27.8	29.9	31.2	33.5	34.0	36.5
Inhalants							
8th-graders	4.4	4.7	5.4	5.6	6.1	5.8	5.6
10th-graders	2.7	2.7	3.3	3.6	3.5	3.3	3.0
12th-graders	2.4	2.3	2.5	2.7	3.2	2.5	2.5

* In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1997 may not be comparable to earlier years. For example, in 1993, the original wording produced an estimate of 26 percent for alcohol use of 8th-graders. The new wording produced an estimate of 24 percent.

NOTE: Only drug use not under a doctor's orders is included.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table 46-3 Percentage of students who reported that it would be "fairly easy" or "very easy" to get drugs, by type of drug and grade: School years 1992–97

Type of drug and grade	1992	1993	1994	1995	1996	1997
Alcohol						
8th-graders	76.2	73.9	74.5	74.9	75.3	74.9
10th-graders	88.6	88.9	89.8	89.7	90.4	89.0
12th-graders	—	—	—	—	—	—
Marijuana						
8th-graders	42.3	43.8	49.9	52.4	54.8	54.2
10th-graders	65.2	68.4	75.0	78.1	81.1	80.5
12th-graders	82.7	83.0	85.5	88.5	88.7	89.6
Heroin						
8th-graders	19.7	19.8	19.4	21.1	20.6	19.8
10th-graders	24.3	24.3	24.7	24.6	24.8	24.4
12th-graders	34.9	33.7	34.1	35.1	32.2	33.8
LSD						
8th-graders	21.5	21.8	21.8	23.5	23.6	22.7
10th-graders	33.6	35.8	36.1	39.8	41.0	38.3
12th-graders	44.5	49.2	50.8	53.8	51.3	50.7
Cocaine						
8th-graders	25.7	25.9	26.4	27.8	27.2	26.9
10th-graders	35.0	34.1	34.5	35.3	36.9	37.1
12th-graders	48.0	45.4	43.7	43.8	44.4	43.3
Tranquilizers						
8th-graders	22.9	21.4	20.4	21.3	20.4	19.6
10th-graders	31.6	30.5	29.8	30.6	30.3	28.7
12th-graders	40.9	41.1	39.2	37.8	36.0	35.4
Cigarettes						
8th-graders	77.8	75.5	76.1	76.4	76.9	76.0
10th-graders	89.1	89.4	90.3	90.7	91.3	89.6
12th-graders	—	—	—	—	—	—

— Not available.

NOTE: Respondents answered the question "How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?" on the following scale: "probably impossible," "very difficult," "fairly difficult," "fairly easy," or "very easy." Eighth- and 10th-graders were also given the response option "Can't say, drug unfamiliar." Percentages include responses of "fairly easy" and "very easy."

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study.*

Table 47-1 Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization and race/ethnicity: 1976–96

	Had something stolen		Property deliberately damaged		Injured with a weapon		Threatened with a weapon		Injured without a weapon		Threatened without a weapon	
Year	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
1976	38.9	35.9	25.1	30.1	5.0	7.8	11.4	16.3	13.2	14.3	21.2	24.2
1977	40.4	32.8	24.3	21.0	4.0	8.1	11.0	19.7	10.6	11.4	20.2	24.2
1978	38.8	32.4	25.7	21.2	3.9	7.2	11.2	13.3	11.5	14.4	20.4	17.5
1979	34.6	27.2	24.5	20.8	4.0	8.1	11.1	16.5	11.7	9.8	20.3	17.9
1980	34.3	33.1	25.3	21.9	3.5	9.9	9.5	17.8	10.3	14.9	19.0	20.0
1981	40.1	39.2	30.4	29.8	5.1	13.4	13.4	23.7	13.8	19.1	23.6	25.0
1982	37.9	42.0	25.6	25.4	4.2	4.5	11.1	15.9	11.8	11.7	21.3	19.5
1983	39.4	39.2	25.0	23.1	4.3	5.6	11.9	14.8	13.4	13.2	23.9	24.5
1984	38.4	35.3	24.3	21.8	3.2	6.0	10.9	16.7	12.1	13.3	23.0	24.4
1985	39.3	35.2	26.6	28.0	5.4	8.9	11.6	22.6	13.6	18.2	24.5	25.2
1986	41.1	36.3	25.7	24.5	4.9	6.9	12.6	15.7	14.5	12.8	25.7	22.7
1987	42.1	39.4	27.0	25.0	4.4	5.6	11.2	17.5	15.4	15.4	25.4	20.2
1988	41.4	46.6	27.4	25.8	3.9	9.0	11.3	22.2	13.5	16.6	24.3	27.7
1989	39.4	46.4	26.0	28.9	4.9	11.3	12.0	24.1	13.7	17.8	24.5	21.0
1990	41.6	42.2	28.9	26.1	4.6	10.0	12.0	16.0	13.6	10.0	26.1	21.7
1991	41.4	44.3	28.4	24.6	5.3	9.6	15.7	20.2	15.4	17.1	26.5	27.5
1992	36.2	44.2	25.7	*26.3	4.5	5.2	12.3	19.4	12.7	*13.8	25.5	20.5
1993	41.6	46.0	25.8	26.3	4.3	6.4	13.8	23.5	11.0	11.5	23.8	22.3
1994	39.5	46.5	28.3	21.5	4.0	8.1	14.8	18.1	11.5	11.5	24.7	22.1
1995	40.0	42.3	28.0	27.3	4.1	8.7	12.3	18.9	11.6	9.2	25.1	22.9
1996	37.6	43.2	25.2	26.0	3.7	9.8	12.3	17.1	11.2	15.7	21.9	21.9

* Revised from previously published figures.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table 47-2 Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization and population density: 1994–96

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
Large metropolitan statistical area						
1994	42.7	25.8	4.3	15.2	13.1	23.1
1995	40.0	23.1	4.1	12.7	11.2	22.0
1996	35.8	27.3	5.9	14.4	12.3	20.5
Other metropolitan statistical area						
1994	36.8	27.1	5.5	14.6	11.2	24.3
1995	39.8	29.0	5.3	13.9	12.4	24.0
1996	40.7	25.8	4.1	12.5	12.4	21.6
Nonmetropolitan statistical area						
1994	41.2	28.7	3.9	15.6	11.1	23.4
1995	41.4	28.9	4.9	12.7	10.7	24.3
1996	36.0	25.2	5.4	13.5	10.4	22.4

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table 48-1 Percentage of public and private school teachers who reported that various parent and student behaviors and attitudes were serious problems in their schools, by selected school and teacher characteristics: School years 1987–88, 1990–91, and 1993–94

Selected school and teacher characteristics	Problems associated with parent: Lack of involvement	Problems associated with parent: Alcoholism and/or drug abuse	Problems associated with student: Apathy	Problems associated with student: Alcohol use	Problems associated with student: Poor nutrition	Problems associated with student: Drug abuse	Problems associated with student: Poor health	Problems associated with student: Pregnancy
			School year 1987–88					
Total	**—**	**—**	**—**	**10.6**	**—**	**7.3**	**—**	**6.2**
Public	—	—	—	11.5	—	8.0	—	6.9
Teacher level								
Elementary	—	—	—	2.0	—	1.6	—	1.2
Secondary	—	—	—	22.5	—	15.5	—	13.6
Urbanicity								
Central city	—	—	—	9.0	—	9.0	—	9.1
Urban fringe/large town	—	—	—	11.2	—	8.4	—	5.4
Rural/small town	—	—	—	13.2	—	7.0	—	6.2
Percentage of minority enrollment								
Less than 5	—	—	—	13.1	—	6.4	—	3.8
5–19	—	—	—	12.2	—	8.1	—	4.3
20–49	—	—	—	10.2	—	8.3	—	8.6
50 or more	—	—	—	9.1	—	9.9	—	12.5
Percentage of students who received free or reduced-price lunch								
0–5	—	—	—	16.3	—	10.7	—	4.9
6–20	—	—	—	14.1	—	9.4	—	6.8
21–40	—	—	—	9.9	—	6.4	—	7.5
More than 40	—	—	—	6.6	—	5.9	—	7.1
Private	—	—	—	3.7	—	1.9	—	0.6
			School year 1990–91					
Total	**22.9**	**10.8**	**18.6**	**7.5**	**—**	**3.8**	**—**	**5.6**
Public	25.4	12.0	20.6	8.2	—	4.3	—	6.4
Teacher level								
Elementary	21.3	11.7	11.5	1.5	—	0.8	—	0.9
Secondary	30.7	12.3	32.3	16.8	—	8.7	—	13.4
Urbanicity								
Central city	35.9	17.8	25.1	6.3	—	4.8	—	8.3
Urban fringe/large town	21.3	9.3	19.0	6.6	—	3.7	—	4.6
Rural/small town	21.6	10.2	18.8	10.7	—	4.3	—	6.5
Percentage of minority enrollment								
Less than 5	15.0	7.4	15.5	9.6	—	3.1	—	3.8
5–19	15.2	7.2	15.4	8.4	—	3.6	—	3.9
20–49	27.3	11.8	22.8	8.1	—	4.8	—	7.3
50 or more	46.6	22.7	29.9	6.7	—	5.8	—	11.2

Table 48-1 **Percentage of public and private school teachers who reported that various parent and student behaviors and attitudes were serious problems in their schools, by selected school and teacher characteristics: School years 1987–88, 1990–91, and 1993–94—Continued**

Selected school and teacher characteristics	Problems associated with parent: Lack of involvement	Problems associated with parent: Alcoholism and/or drug abuse	Problems associated with student: Apathy	Problems associated with student: Alcohol use	Problems associated with student: Poor nutrition	Problems associated with student: Drug abuse	Problems associated with student: Poor health	Problems associated with student: Pregnancy
Percentage of students who received free or reduced-price lunch								
0–5	10.1	4.3	13.6	10.6	—	4.8	—	3.5
6–20	17.3	7.0	19.4	10.8	—	4.7	—	6.2
21–40	23.9	10.2	20.7	7.7	—	4.0	—	7.9
More than 40	40.5	21.1	24.2	5.0	—	3.6	—	6.3
Private	4.3	2.2	4.2	2.4	—	0.5	—	0.3
			School year 1993–94					
Total	**24.6**	**11.7**	**21.2**	**8.5**	**7.3**	**5.2**	**4.5**	**3.6**
Public	27.5	13.0	23.6	9.3	8.2	5.7	5.0	4.1
Teacher level								
Elementary	21.6	13.3	11.8	1.2	9.3	0.6	5.8	2.5
Secondary	34.0	12.7	36.3	18.0	7.0	11.2	4.1	5.7
Urbanicity								
Central city	35.9	17.2	28.0	6.9	12.7	6.3	8.5	7.0
Urban fringe/large town	24.0	10.6	21.9	8.1	7.1	5.7	4.2	3.4
Rural/small town	24.6	12.1	22.0	11.8	5.9	5.4	3.3	2.6
Percentage of minority enrollment								
Less than 5	18.1	7.9	18.5	11.0	3.8	4.3	1.9	1.4
5–19	16.7	7.8	18.5	9.5	4.1	5.1	2.2	2.2
20–49	29.7	13.7	26.6	9.8	8.0	6.7	4.8	4.2
50 or more	46.1	22.8	31.8	6.9	16.8	6.8	11.1	8.3
Percentage of students who received free or reduced-price lunch								
0–5	13.3	5.0	17.7	12.7	2.1	7.0	1.3	2.2
6–20	19.4	7.2	23.5	13.4	3.4	7.4	1.8	3.1
21–40	26.1	11.0	24.3	8.5	7.3	5.3	4.1	3.2
More than 40	39.7	22.1	25.3	5.4	14.5	3.9	9.4	5.5
Private	4.0	2.6	4.5	3.2	1.4	1.3	0.9	0.8

— Not available.

NOTE: See the glossary for the definition of urbanicity. See the supplemental note to this indicator for the definition of teacher level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94 (Public School, Private School, Public School Teacher, and Private School Teacher questionnaires).

Note to Indicator 49: Format of NHES survey questions and description of school activities in which parents participate

This analysis presents data on parent involvement in children's school activities and the practices that schools use to promote parent involvement. All data describe parents of children enrolled in preprimary, elementary, and secondary schools unless otherwise noted.

Format of NHES survey questions

The majority of questions from the Parent and Family Involvement in Education component of the National Household Education Survey (NHES), 1996 were administered to parents with children in preprimary through grade 12. Some questions were asked only of parents with students in grades 1–12, while other questions were asked only of parents with students in grades 9–12. These questions are noted as such on the tables. While all data presented in this analysis refer to the children enrolled in school, the most knowledgeable parents of these children actually reported the data for this analysis.

Two formats were used for the questions on school practices: 1) a dichotomous (yes/no) format (e.g., "Has the school called you on the phone?") in which parents could respond if a school had used a particular practice, and 2) a scale in which parents could express their level of satisfaction with a particular school practice (e.g., "How well would you say your child's school makes you aware of chances to volunteer at the school?"). In this analysis, questions which were asked in the dichotomous format are presented as the percentage of parents who responded "yes" to that question. All questions using the scale format are presented as the percentage of parents who answered "does very well," on a scale of "does very well," "does just o.k.," and "does not do at all."

Description of school activities in which parents participate

Schools use several practices to promote parent involvement in children's school activities. The list below describes the school activities in which parents were asked to report their participation:

Attended a general meeting: Includes general school meetings such as back-to-school nights or parent-teacher organization meetings.

Attended a regularly scheduled meeting: Includes school meetings such as parent-teacher conferences.

Attended school event: Includes events such as class plays, science fairs, and sporting events.

Acted as a volunteer or served on a school committee: Includes any volunteer work parents perform at their child's school.

SOURCE: U. S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education component).

Table 50-1 Total and full-time-equivalent (FTE) enrollment in higher education, by control and type of institution: Fall 1972–95

Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
			Total enrollment		
1972	9,214,820	4,429,696	2,640,939	2,028,938	115,247
1973	9,602,123	4,529,895	2,889,621	2,060,128	122,479
1974	10,223,729	4,703,018	3,285,482	2,116,717	118,512
1975	11,184,859	4,998,142	3,836,366	2,216,598	133,753
1976	11,012,137	4,901,691	3,751,786	2,227,125	131,535
1977	11,285,787	4,945,224	3,901,769	2,297,621	141,173
1978	11,260,092	4,912,203	3,873,690	2,319,422	154,777
1979	11,569,899	4,980,012	4,056,810	2,373,221	159,856
1980	12,096,895	5,128,612	4,328,782	2,441,996	197,505
1981	12,371,672	5,166,324	4,480,708	2,489,137	235,503
1982	12,425,780	5,176,434	4,519,653	2,477,640	252,053
1983	12,464,661	5,223,404	4,459,330	2,517,791	264,136
1984	12,241,940	5,198,273	4,279,097	2,512,894	251,676
1985	12,247,055	5,209,540	4,269,733	2,506,438	261,344
1986	12,503,511	5,300,202	4,413,691	2,523,761	265,857
1987	12,766,642	5,432,200	4,541,054	2,558,220	235,168
1988	13,055,337	5,545,901	4,615,487	2,634,281	259,668
1989	13,538,560	5,694,303	4,883,660	2,693,368	267,229
1990	13,818,637	5,848,242	4,996,475	2,730,312	243,608
1991	14,358,953	5,904,748	5,404,815	2,802,305	247,085
1992	[1]14,487,359	5,900,012	5,484,555	[1]2,864,957	237,835
1993	14,304,803	5,851,760	5,337,328	2,887,176	228,539
1994	14,278,790	5,825,213	5,308,467	2,923,867	221,243
1995[2]	14,261,781	5,814,545	5,277,829	2,954,707	214,700
			Full-time-equivalent (FTE) enrollment		
1972	7,253,712	3,706,238	1,746,613	1,700,554	100,308
1973	7,453,467	3,721,035	1,908,533	1,718,191	105,708
1974	7,805,454	3,847,542	2,097,257	1,758,706	101,949
1975	8,479,688	4,056,500	2,465,810	1,843,903	113,475
1976	8,312,502	3,998,450	2,351,453	1,849,551	113,048
1977	8,415,339	4,039,071	2,357,405	1,896,005	122,858
1978	8,348,482	3,996,126	2,283,073	1,936,231	133,052
1979	8,487,317	4,059,304	2,333,313	1,956,768	137,932
1980	8,819,013	4,158,267	2,484,027	2,003,105	173,614
1981	9,014,521	4,208,506	2,572,794	2,041,341	191,880
1982	9,091,648	4,220,648	2,629,941	2,028,275	212,784
1983	9,166,398	4,265,807	2,615,672	2,059,415	225,504
1984	8,951,695	4,237,895	2,446,769	2,054,816	212,215
1985	8,943,433	4,239,622	2,428,159	2,054,717	220,935
1986	9,064,165	4,295,494	2,482,551	2,064,831	221,291
1987	9,229,736	4,395,728	2,541,961	2,090,776	201,269
1988	9,464,271	4,505,774	2,591,131	2,158,372	208,994
1989	9,780,881	4,619,828	2,751,762	2,193,774	215,517
1990	9,983,436	4,740,049	2,817,933	2,227,959	197,495
1991	10,360,606	4,795,704	3,067,141	2,285,750	212,011
1992	[1]10,436,776	4,797,884	3,113,817	[1]2,331,495	193,580
1993	10,351,415	4,765,983	3,046,411	2,354,938	184,083
1994	10,348,072	4,749,524	3,034,872	2,387,817	175,859
1995[2]	10,334,956	4,757,223	2,994,592	2,415,621	167,520

[1] Revised from previously published figures.

[2] Preliminary data.

NOTE: Increases in enrollments in private 2-year institutions during 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools. Due to a revision in data compilation procedures, FTE figures for 1986 and later years are not directly comparable to data for earlier years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, tables 170 and 196 (based on the IPEDS/HEGIS "Fall Enrollment" surveys).

Table 52-1 Percentage distribution of undergraduates who worked, by the number of hours worked while enrolled, the average number of hours worked, and selected student and institutional characteristics: 1995–96

Selected student and institutional characteristics	Did not work	1–15 hours	16–20 hours	21–34 hours	35 or more hours	Average number of hours
Total	**21.2**	**13.2**	**12.4**	**16.7**	**36.4**	**30.3**
			Students who worked to pay school expenses			
Total	**—**	**25.3**	**21.8**	**27.0**	**26.0**	**25.1**
Attendance status in 1995–96						
Exclusively full time	—	31.4	22.9	27.0	18.7	22.8
Mixed full time/part time	—	20.9	23.8	27.8	27.5	25.9
Exclusively part time	—	14.2	15.7	25.7	44.5	30.3
Type of institution						
Less-than-2-year	—	14.4	22.6	34.4	28.5	26.7
2-year	—	14.0	19.5	29.0	37.5	29.0
4-year	—	34.0	23.5	24.7	17.8	22.3
Degree program						
Certificate	—	18.0	21.8	26.7	33.6	27.8
Associate degree	—	15.2	20.0	30.1	34.8	28.2
Bachelor's degree	—	34.3	23.5	24.9	17.4	22.2
Nondegree program	—	11.0	8.8	23.0	57.2	32.1
			Employees who took classes			
Total	—	**3.5**	**5.8**	**11.8**	**78.9**	**38.7**
Attendance status in 1995–96						
Exclusively full time	—	7.3	12.1	21.3	59.3	34.2
Mixed full time/part time	—	4.6	10.3	13.4	71.7	36.9
Exclusively part time	—	2.2	3.2	8.9	85.7	40.3
Type of institution						
Less-than-2-year	—	5.0	10.9	21.1	63.0	35.3
2-year	—	2.7	5.5	11.5	80.3	38.9
4-year	—	4.9	5.5	11.6	78.1	38.8
Degree program						
Certificate	—	4.3	6.0	15.4	74.2	37.7
Associate degree	—	2.8	6.2	11.6	79.3	38.8
Bachelor's degree	—	5.5	5.5	12.4	76.7	38.4
Nondegree program	—	1.3	3.6	3.9	91.1	41.0

— Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Table 53-1 Percentage distribution of public school expenditures, by function and selected district characteristics: School year 1993–94

Selected district characteristics	Percentage distribution	Total	Instruction	Support services	Capital outlay	Other
Median household income						
Less than $20,000	17.9	100.0	54.2	31.0	7.2	7.6
20,000–24,999	26.0	100.0	54.1	30.0	8.0	7.9
25,000–29,999	19.4	100.0	54.7	29.1	8.7	7.6
30,000–34,999	11.8	100.0	53.7	30.2	8.9	7.1
35,000 or more	24.9	100.0	54.2	30.9	8.6	6.3
Percentage of school-age children in poverty						
0–5	15.3	100.0	54.5	31.2	8.0	6.3
6–20	53.6	100.0	53.8	29.9	9.4	6.8
21–40	25.7	100.0	54.8	29.8	7.4	8.0
41 or more	5.4	100.0	53.4	32.6	6.5	7.5
Percentage of limited-English-proficient school-age children						
None	40.9	100.0	54.2	29.1	7.6	9.1
1–4	55.4	100.0	54.0	30.6	8.6	6.8
5 or more	3.7	100.0	55.4	28.4	8.3	7.9
Percentage of minority school-age children						
Less than 5	61.6	100.0	55.0	29.0	8.0	8.0
5–19	21.1	100.0	53.8	30.2	9.8	6.2
20–49	12.3	100.0	53.2	31.2	8.9	6.7
50 or more	5.0	100.0	55.2	30.0	6.5	8.3

NOTE: Details may not add to totals due to rounding. The categories for median household income are based on 1990 Census data and are adjusted to 1993-94 constant dollars. See the glossary for definitions of specific expenditure functions. The number of pupils for a given school year includes those students enrolled in school as of October 1 of that school year. The Consumer Price Index (CPI) was used to adjust expenditures to 1997 constant dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Fiscal Data," 1993-94. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

Table 54-1 **Percentage distribution of general education revenues of institutions of higher education per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–95**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
Private universities									
1977	100.0	40.3	2.2	1.8	27.7	2.5	12.9	8.0	4.6
1978	100.0	40.6	2.0	1.6	27.4	2.2	13.4	7.7	5.1
1979	100.0	40.8	2.0	1.5	27.4	2.2	12.9	8.2	4.9
1980	100.0	40.1	1.9	1.4	27.8	2.6	12.4	8.3	5.4
1981	100.0	40.8	1.8	1.5	27.4	2.1	12.8	8.4	5.2
1982	100.0	42.5	1.7	1.4	25.6	1.9	12.7	8.7	5.3
1983	100.0	45.0	1.8	1.4	23.2	2.2	12.9	7.7	5.7
1984	100.0	44.2	1.6	1.3	22.8	2.2	13.4	8.4	6.1
1985	100.0	44.4	1.5	1.2	22.8	2.1	13.5	8.7	5.7
1986	100.0	44.2	1.4	1.2	23.2	2.2	13.6	8.6	5.7
1987	100.0	43.8	1.1	1.1	23.9	2.8	13.3	8.2	5.7
1988	100.0	44.0	1.1	1.0	22.3	3.6	13.5	8.5	6.0
1989	100.0	44.0	1.1	0.9	21.9	3.7	13.2	8.6	6.5
1990	100.0	43.9	1.1	0.9	21.9	3.7	13.4	8.6	6.4
1991	100.0	45.0	0.9	0.8	21.2	3.2	13.6	8.5	6.8
1992	100.0	45.1	0.9	0.5	21.1	3.4	13.5	8.1	7.4
1993	100.0	44.8	0.8	0.4	21.1	3.4	14.0	8.1	7.5
1994	100.0	45.0	0.8	0.4	21.6	2.6	14.1	7.9	7.7
1995	100.0	45.0	0.7	0.4	21.2	2.7	14.0	8.0	7.8
Public universities									
1977	100.0	16.4	2.9	52.4	17.0	2.1	4.7	0.7	3.7
1978	100.0	16.3	3.0	52.5	16.7	2.1	4.8	1.0	3.5
1979	100.0	15.9	3.0	52.1	16.9	2.3	4.7	1.0	4.0
1980	100.0	15.9	2.6	51.8	17.4	2.1	5.0	1.1	4.1
1981	100.0	16.4	2.3	51.3	17.3	2.3	5.0	1.1	4.3
1982	100.0	17.6	2.1	51.4	15.8	2.2	5.3	1.1	4.4
1983	100.0	19.0	2.0	50.3	15.0	2.1	5.9	1.2	4.5
1984	100.0	19.1	2.0	50.6	14.9	1.9	5.8	1.3	4.4
1985	100.0	18.3	2.1	51.2	14.8	2.0	5.9	1.3	4.4
1986	100.0	18.6	2.1	50.5	14.8	2.0	6.2	1.4	4.4
1987	100.0	19.5	1.9	49.3	15.0	2.4	6.4	1.0	4.5
1988	100.0	19.8	1.5	48.7	15.4	2.4	6.6	1.0	4.5
1989	100.0	20.0	1.5	47.7	15.6	2.6	7.0	1.0	4.6
1990	100.0	20.3	1.4	46.8	15.6	2.9	7.3	1.0	4.6
1991	100.0	21.1	1.4	45.6	16.0	3.0	7.2	1.1	4.8
1992	100.0	22.2	1.4	42.9	16.9	2.7	7.6	1.2	5.1
1993	100.0	23.0	1.4	41.8	17.0	2.7	7.7	1.3	5.1
1994	100.0	23.8	1.3	40.7	17.6	2.9	7.6	1.2	4.9
1995	100.0	24.0	1.2	40.6	17.4	3.0	7.5	1.3	5.0

Table 54-1 Percentage distribution of general education revenues of institutions of higher education per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–95—Continued

Academic year ending	Total	Tuition and fees*	Federal appro- priations	State and local appro- priations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endow- ment	Sales and services of educational activities
				Private 4-year colleges					
1977	100.0	61.7	0.9	2.1	10.8	2.0	15.6	5.8	1.0
1978	100.0	62.5	1.0	2.0	10.5	2.0	15.2	5.8	1.0
1979	100.0	62.2	1.0	1.9	11.0	2.0	14.7	6.2	1.0
1980	100.0	61.0	1.0	1.9	11.5	2.3	14.5	6.6	1.1
1981	100.0	61.6	1.1	1.9	10.7	2.3	14.3	6.9	1.2
1982	100.0	63.0	0.8	1.7	9.2	2.3	14.2	7.6	1.0
1983	100.0	64.6	0.6	1.7	7.7	2.4	14.4	7.5	1.0
1984	100.0	65.0	0.5	1.7	7.7	2.4	14.2	7.4	1.1
1985	100.0	64.8	0.5	1.6	7.7	2.5	14.3	7.5	1.0
1986	100.0	64.9	0.5	1.6	7.8	2.6	14.1	7.4	1.1
1987	100.0	65.2	0.6	1.6	7.4	2.9	14.1	7.2	1.1
1988	100.0	65.5	0.5	1.6	7.4	3.1	13.4	7.3	1.1
1989	100.0	66.0	0.4	1.4	7.1	3.6	13.0	7.5	1.1
1990	100.0	66.8	0.4	1.2	7.1	3.8	12.4	7.3	1.0
1991	100.0	68.1	0.4	1.1	6.8	3.5	12.0	7.1	1.0
1992	100.0	68.9	0.4	0.8	7.0	4.1	11.5	6.5	1.0
1993	100.0	69.3	0.3	0.7	7.0	3.8	11.3	6.1	1.5
1994	100.0	69.6	0.2	0.7	7.0	4.0	11.1	5.8	1.5
1995	100.0	69.9	0.2	0.5	7.1	3.7	11.6	5.9	1.0
				Public 4-year colleges					
1977	100.0	16.4	4.9	60.7	11.6	2.1	2.4	0.3	1.7
1978	100.0	16.0	4.9	61.4	10.9	2.2	2.5	0.2	1.8
1979	100.0	15.2	4.9	61.6	11.2	2.3	2.5	0.3	1.9
1980	100.0	14.9	5.0	61.5	11.3	2.2	2.6	0.3	2.1
1981	100.0	15.4	5.3	60.8	10.9	2.2	2.7	0.4	2.3
1982	100.0	16.1	4.7	61.5	9.7	2.1	2.9	0.4	2.5
1983	100.0	17.0	4.8	61.2	8.7	2.1	3.2	0.4	2.5
1984	100.0	18.2	4.7	59.8	8.5	2.3	3.3	0.4	2.7
1985	100.0	17.6	4.6	60.7	8.3	2.1	3.4	0.4	2.8
1986	100.0	17.7	4.3	60.0	8.4	2.6	3.6	0.4	3.0
1987	100.0	18.0	4.3	58.8	8.4	3.0	3.8	0.5	3.3
1988	100.0	18.4	4.3	58.4	8.3	2.9	3.7	0.5	3.5
1989	100.0	19.2	2.8	58.1	8.6	3.0	4.1	0.6	3.7
1990	100.0	19.7	4.2	55.6	8.6	3.2	4.3	0.6	3.8
1991	100.0	20.7	3.8	53.8	8.9	3.4	4.8	0.3	4.2
1992	100.0	22.4	3.6	51.3	9.4	3.7	4.9	0.6	4.1
1993	100.0	23.9	3.2	48.1	10.4	4.0	5.2	0.8	4.4
1994	100.0	24.4	3.4	46.8	10.8	4.2	5.3	0.6	4.5
1995	100.0	24.2	3.2	46.2	11.1	4.8	5.2	0.6	4.7

Table 54-1 Percentage distribution of general education revenues of institutions of higher education per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–95—Continued

Academic year ending	Total	Tuition and fees*	Federal appro- priations	State and local appro- priations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endow- ment	Sales and services of educational activities
Public 2-year colleges									
1977	100.0	16.8	2.0	72.5	5.8	2.0	0.5	0.1	0.4
1978	100.0	16.1	1.8	73.3	5.5	2.3	0.5	0.1	0.4
1979	100.0	15.8	1.9	72.7	6.0	2.5	0.5	0.1	0.5
1980	100.0	16.1	1.3	72.6	6.3	2.6	0.5	0.1	0.5
1981	100.0	16.8	1.2	71.7	6.3	2.8	0.5	0.1	0.6
1982	100.0	18.0	1.1	71.7	5.2	2.9	0.5	0.1	0.5
1983	100.0	19.3	0.8	71.4	4.3	2.9	0.6	0.1	0.5
1984	100.0	19.5	0.9	71.0	4.4	2.9	0.6	0.1	0.5
1985	100.0	19.1	0.7	70.9	4.6	3.4	0.6	0.1	0.5
1986	100.0	18.6	0.6	71.4	4.5	3.7	0.6	0.1	0.6
1987	100.0	18.5	0.7	70.4	4.1	4.8	0.6	0.1	0.6
1988	100.0	18.7	0.7	70.5	4.1	4.7	0.7	0.1	0.5
1989	100.0	19.1	0.7	68.7	4.2	6.0	0.8	0.1	0.5
1990	100.0	19.6	0.7	67.7	4.2	6.3	0.9	0.1	0.5
1991	100.0	20.5	0.7	67.4	4.2	5.7	0.9	0.1	0.5
1992	100.0	22.1	0.8	65.2	4.5	5.8	1.0	0.1	0.5
1993	100.0	26.2	0.6	61.0	5.0	5.6	1.0	0.1	0.7
1994	100.0	26.4	0.6	60.4	5.2	5.6	1.0	0.1	0.8
1995	100.0	25.8	0.5	60.6	5.4	5.8	1.1	0.1	0.7

* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

NOTE: Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey, and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

Table 55-1 **Percentage distribution of educational and general expenditures of institutions of higher education per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–95**

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
					Private universities					
1977	100.0	38.0	13.2	3.3	21.1	4.2	2.2	8.8	8.1	1.1
1978	100.0	37.9	13.4	3.4	20.8	4.2	2.1	8.7	8.4	1.1
1979	100.0	37.4	14.0	3.4	20.7	3.9	2.1	9.0	8.1	1.3
1980	100.0	37.9	14.2	3.4	20.5	3.7	2.3	8.9	7.9	1.3
1981	100.0	38.1	13.9	3.5	19.8	3.7	2.1	9.1	8.2	1.5
1982	100.0	39.1	13.8	3.6	18.9	3.7	2.0	9.5	8.2	1.2
1983	100.0	39.4	14.8	3.7	17.9	3.6	2.1	9.2	8.2	1.2
1984	100.0	38.6	15.2	3.7	17.7	3.8	2.0	9.1	8.8	1.2
1985	100.0	38.0	14.9	3.8	18.1	3.5	2.4	8.9	8.9	1.4
1986	100.0	37.8	15.0	3.8	18.5	3.5	2.4	8.6	9.1	1.3
1987	100.0	38.4	15.2	3.9	18.4	3.1	2.6	7.7	9.4	1.4
1988	100.0	37.5	15.2	3.8	18.7	3.5	2.5	7.7	9.6	1.5
1989	100.0	38.0	15.2	3.7	18.4	3.4	2.5	7.5	9.7	1.6
1990	100.0	37.8	14.7	3.7	18.6	3.4	2.5	7.5	9.9	1.8
1991	100.0	38.3	14.8	3.8	17.8	3.2	2.6	7.8	10.3	1.6
1992	100.0	38.2	14.8	3.7	17.4	3.2	2.5	7.5	11.1	1.6
1993	100.0	38.4	14.1	3.5	17.9	3.2	2.7	7.3	11.4	1.7
1994	100.0	38.5	13.9	3.6	17.7	3.2	2.8	7.3	11.4	1.8
1995[2]	100.0	38.3	13.7	3.6	17.9	3.3	2.7	7.1	11.6	1.9
					Public universities					
1977	100.0	39.0	13.0	3.7	18.4	3.5	8.1	9.1	4.0	1.2
1978	100.0	39.2	13.2	3.8	18.6	3.4	7.9	9.2	3.8	1.0
1979	100.0	39.1	13.1	3.7	18.9	3.2	8.2	9.3	3.5	1.0
1980	100.0	38.8	12.5	3.8	19.5	3.7	8.1	9.2	3.5	1.0
1981	100.0	38.5	12.9	3.8	19.7	3.2	8.3	9.1	3.5	1.0
1982	100.0	38.8	13.1	3.8	19.3	3.2	8.1	9.4	3.5	0.9
1983	100.0	38.8	13.1	3.8	19.2	3.3	8.1	9.4	3.5	0.9
1984	100.0	38.6	13.1	3.7	19.1	3.3	8.0	9.4	3.6	1.0
1985	100.0	38.3	13.7	3.7	19.4	3.2	8.0	9.2	3.6	0.9
1986	100.0	37.7	13.9	3.7	19.7	3.2	8.0	8.8	3.8	1.2
1987	100.0	38.0	14.0	3.7	20.0	3.1	7.8	8.3	3.8	1.2
1988	100.0	37.3	13.9	3.7	20.6	3.2	7.8	8.1	4.0	1.4
1989	100.0	36.8	13.9	3.7	21.0	3.1	8.0	7.9	4.2	1.3
1990	100.0	36.6	13.8	3.7	21.4	3.1	8.1	7.8	4.3	1.4
1991	100.0	36.3	13.7	3.6	21.7	3.0	8.2	7.6	4.5	1.4
1992	100.0	36.0	13.3	3.7	22.0	3.0	8.3	7.4	4.9	1.5
1993	100.0	35.7	13.1	3.7	22.3	2.9	8.3	7.2	5.3	1.5
1994	100.0	35.3	13.3	3.7	22.4	2.9	8.1	7.2	5.6	1.5
1995[2]	100.0	35.4	13.3	3.7	22.3	3.0	8.1	7.0	5.7	1.5

Table 55-1 Percentage distribution of educational and general expenditures of institutions of higher education per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–95—Continued

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
					Private 4-year colleges					
1977	100.0	37.3	20.4	7.4	5.0	3.9	2.4	11.2	10.0	2.3
1978	100.0	37.5	20.6	7.6	4.8	3.9	2.2	11.3	9.8	2.3
1979	100.0	37.2	20.7	7.7	5.2	3.8	2.2	11.2	9.6	2.3
1980	100.0	36.7	20.8	7.8	5.3	3.7	2.2	11.4	9.8	2.4
1981	100.0	36.1	21.1	7.9	5.1	3.6	2.3	11.5	10.1	2.3
1982	100.0	36.1	21.4	8.0	4.6	3.6	2.5	11.4	10.1	2.2
1983	100.0	36.2	21.7	8.2	4.5	3.6	2.4	11.1	10.0	2.2
1984	100.0	36.0	21.6	8.2	4.4	3.6	2.4	10.9	10.6	2.2
1985	100.0	35.6	21.7	8.3	4.6	3.5	2.4	10.6	11.1	2.3
1986	100.0	35.1	21.7	8.3	4.8	3.5	2.6	10.2	11.5	2.3
1987	100.0	34.3	22.8	8.3	4.9	2.9	2.7	9.7	12.1	2.2
1988	100.0	34.1	22.1	8.4	5.0	3.2	3.0	9.5	12.8	2.0
1989	100.0	33.8	22.2	8.5	5.0	3.1	2.9	9.4	12.9	2.2
1990	100.0	33.5	21.9	8.5	4.9	3.1	3.1	9.1	13.6	2.2
1991	100.0	33.4	22.2	8.7	4.4	2.9	3.1	8.9	14.2	2.2
1992	100.0	33.1	21.4	8.7	4.3	3.0	3.2	8.6	15.7	2.1
1993	100.0	32.8	20.7	8.7	4.4	2.9	3.5	8.5	16.5	2.1
1994	100.0	32.3	20.6	8.7	4.4	2.9	3.5	8.4	17.1	2.1
1995[2]	100.0	32.3	20.1	8.7	4.3	2.8	3.9	8.1	17.6	2.2
					Public 4-year colleges					
1977	100.0	46.4	16.7	5.8	7.0	3.9	2.9	11.5	3.9	2.0
1978	100.0	46.2	16.7	6.0	7.1	3.9	2.9	11.7	3.5	2.1
1979	100.0	45.6	17.1	6.2	7.5	3.8	2.9	11.6	3.2	2.0
1980	100.0	44.9	17.3	6.2	8.0	3.8	3.1	11.7	3.3	1.8
1981	100.0	44.8	17.2	6.1	7.9	3.9	3.1	11.9	3.1	1.8
1982	100.0	45.7	17.6	5.8	7.6	3.7	3.1	12.1	2.8	1.6
1983	100.0	45.7	17.4	5.9	7.5	3.7	3.1	12.1	2.9	1.7
1984	100.0	45.1	18.2	6.3	7.5	3.8	3.1	11.3	2.9	1.7
1985	100.0	44.8	18.4	6.2	7.7	3.7	3.3	11.7	2.7	1.6
1986	100.0	45.0	18.4	6.2	8.2	3.6	3.3	10.7	2.9	1.8
1987	100.0	44.7	18.7	6.1	8.6	3.2	3.6	10.4	3.1	1.6
1988	100.0	44.6	18.4	6.2	8.9	3.3	3.7	10.1	3.1	1.6
1989	100.0	44.6	18.2	6.1	9.4	3.3	3.8	9.9	3.1	1.6
1990	100.0	44.4	18.7	6.1	9.3	3.3	4.0	9.6	3.2	1.6
1991	100.0	44.3	18.6	6.2	9.5	3.1	4.0	9.4	3.3	1.5
1992	100.0	43.2	18.9	6.1	9.7	3.1	4.3	9.1	4.1	1.6
1993	100.0	42.0	19.4	6.5	9.8	3.0	4.4	8.9	4.4	1.6
1994	100.0	42.1	18.8	6.2	10.1	3.0	4.4	8.9	4.9	1.6
1995[2]	100.0	41.8	18.8	6.1	10.1	3.0	4.5	8.7	5.1	1.9

Table 55-1 Percentage distribution of educational and general expenditures of institutions of higher education per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–95—Continued

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
					Public 2-year colleges					
1977	100.0	51.1	18.1	8.4	0.3	3.5	2.0	11.2	2.9	2.4
1978	100.0	50.6	19.4	8.2	0.2	3.5	2.1	11.3	2.2	2.4
1979	100.0	50.2	19.5	8.4	0.4	3.4	1.9	11.3	2.2	2.6
1980	100.0	50.3	19.0	8.6	0.4	3.2	2.2	11.7	2.3	2.2
1981	100.0	50.6	19.1	8.7	0.4	3.1	2.2	12.0	2.3	1.7
1982	100.0	50.9	19.0	8.8	0.2	3.4	1.9	12.3	2.1	1.5
1983	100.0	50.9	19.5	8.9	0.2	3.0	1.5	12.3	2.1	1.6
1984	100.0	50.8	19.8	8.8	0.2	3.0	1.7	12.2	2.0	1.5
1985	100.0	50.3	20.2	8.8	0.2	2.9	2.0	12.1	2.2	1.4
1986	100.0	49.9	20.7	9.0	0.1	2.9	2.0	11.9	2.2	1.4
1987	100.0	49.6	21.8	9.4	0.1	2.3	2.2	11.5	2.2	0.8
1988	100.0	49.2	21.3	9.9	0.1	2.7	2.3	11.4	2.4	0.8
1989	100.0	49.6	21.5	9.5	0.1	2.6	2.5	11.2	2.4	0.7
1990	100.0	49.8	21.5	9.7	0.1	2.5	2.4	11.0	2.3	0.7
1991	100.0	49.9	21.6	9.9	0.1	2.5	2.4	10.7	2.4	0.6
1992	100.0	50.3	20.9	10.2	0.2	2.4	2.2	10.4	2.8	0.6
1993	100.0	50.1	20.9	10.4	0.2	2.3	2.3	10.1	3.1	0.6
1994	100.0	49.4	21.0	10.4	0.2	2.3	2.4	10.3	3.4	0.7
1995[2]	100.0	49.0	21.0	10.5	0.2	2.2	2.3	10.2	3.7	0.7

[1] Includes institutional and academic support. Libraries were excluded.

[2] Preliminary data.

NOTE: Details may not add to totals due to rounding. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, tables 338–342 (based on the IPEDS/HEGIS "Financial Statistics" surveys).

Note to Indicator 56: International comparisons of education expenditures

The purpose of this analysis is to compare expenditures for education in public and private institutions to Gross Domestic Product (GDP) and school enrollment.

Definitions

Public education expenditures include funds provided to both public and private schools by federal, state, and local governments either directly or through students. This includes expenditures at public schools funded by public sources and subsidies to students at private schools from government agencies.

Private education expenditures are expenditures financed by private sources—households, private nonprofit institutions, businesses, and corporations. For example, this includes expenditures supported by public and private school tuition and fees, such as student expenses for books and materials.

Gross Domestic Product (GDP) is an aggregate measure of the value of goods and services produced in a country.

Expenditures in the United States

Primary and secondary education

For the United States, public expenditures for primary and secondary education include expenditures in local public school districts and private schools; schools administered by religious organizations, funded by state and local taxes, federal programs administered by the U.S. Department of Education (ED); and federal programs operated outside of ED that are not administered by state or local education agencies (e.g., Head Start, Department of Defense Schools, and schools operated by the Bureau of Indian Affairs).

Also included in public expenditures for primary and secondary education are federal expenditures to operate ED and activities such as research, statistics, assessment, and school improvement, and state expenditures to operate state departments of education and other direct state expenditures, including state schools for the deaf and blind and reform schools.

Some expenditures, such as those for federal or state agency administration and those for non-graded special education programs, cannot be assigned to particular grade levels, because the expenditures defy strict grade-level categorizations. The United States, like some other countries, has chosen to prorate these expenditures over the grade levels based on the relative size of enrollments, staffing, and teacher salaries. However, other countries have chosen not to allocate such expenditures, classifying them, instead, as "undistributed."

Higher education

Public expenditures for higher education in the United States include expenditures at both public and private colleges and universities funded by federal, state, and local governments. The Integrated Postsecondary Education Data System (IPEDS), the core postsecondary education data collection program for the National Center for Education Statistics (NCES), gathers institutional reports for revenue received by both public and private institutions from both public and private sources. Expenditures by public and private nonprofit institutions are separated into public and private expenditures based on their relative shares of current fund revenues.

Most federal aid goes to students who then spend it on education (e.g., tuition) and non-education (room and board) services. For the purposes of calculating public expenditures for higher education in the United States, it was assumed that students spent 60 percent of federally administered Pell grants on education.

With the exception of Pell grant money, public expenditures for less-than-2-year public and private institutions, often called "proprietary" schools, were not available; therefore, public expenditures for higher education in the United States are biased downward. However, since the students participating in these institutions are also excluded from higher education enrollments, the estimate of public expenditures per student would be biased upward if the per-student public expenditures in less-than-2-year institutions were less than those in other higher education institutions.

Private expenditures

For the United States, as in other Organization for Economic Co-operation and Development (OECD) countries, private expenditures refers to expenditures funded by private sources—mainly households, private non-profit institutions, and firms and businesses. It includes school fees; materials such as textbooks and teaching equipment; transport to school (if organized by the school); meals (if provided by the school); boarding fees; and expenditures by employers for initial vocational training.

Per student expenditures

Per student expenditures are a measure of the average investment per student in the education system. They are calculated as total expenditures, funded by both public and private sources, divided by enrollment in both public and private schools.

The data for per-student expenditures in higher education come directly from tables in *Education at A Glance (EAG)* published by the Organization for Economic Co-operation and Development in 1997. However, the EAG tables include per student expenditures broken down by early childhood, primary, secondary, and higher education.

For this analysis, the primary and secondary figures were recalculated to generate one expenditure figure for the primary and secondary levels combined. This was done by, first, adding the full-time-equivalent enrollment (FTE) numbers for primary and secondary education (see table 1) to determine total FTE. Second, total expenditures were calculated by multiplying the FTE numbers by expenditures per student, for primary and secondary education, and then adding these two figures together to determine total expenditures for primary-secondary education. Finally, total expenditures on primary and secondary education were divided by total enrollment in the primary and secondary levels to determine per student expenditures for primary-secondary education. These recalculated figures were divided by GDP per capita (see table 1) to determine per pupil expenditures for primary-secondary education as a percentage of GDP per capita.

Table 1. Preprimary and secondary full-time-equivalent (FTE) enrollments and GDP per capita for G-7 countries

Country	Primary FTE	Secondary FTE	GDP per capita (in constant 1994 dollars)
Canada	2,400,819	2,455,427	$20,297.72
France	4,100,574	5,993,746	19,233.30
Germany	3,603,943	7,664,633	19,668.28
Italy	2,602,233	4,568,362	18,647.74
Japan	8,798,082	10,258,356	21,170.46
U.K.	4,865,514	5,278,568	17,621.73
U.S.	23,426,455	20,601,665	25,512.28

SOURCE: Organization for Economic Co-operation and Development, Centre for Educational Research and Innovation, *Education at A Glance: OECD Indicators*, 1997, table X2.1 (http://www.oecd.org/els/stats/els_stat.htm, table B4.1).

How students are classified

The International Standard Classification of Education (ISCED) was designed as an instrument for presenting statistics of education internationally, so that comparisons could be made among countries. Many countries report education statistics to UNESCO and OECD using the ISCED. In this classification system, education is divided into several levels.

The following are summary definitions used in this analysis:

- Education preceding the first level (early childhood education) where it is provided, usually begins at age 3, 4, or 5 (sometimes earlier) and lasts for 1–3 years. For the United States, this would be mostly nursery schools and kindergarten classes.
- Education at the first level (primary education) usually begins at age 5, 6, or 7 and lasts for about 5 or 6 years. For the United States, the first level starts with grade 1 and ends with grade 6.
- Education at the second level (lower secondary education) begins at age 11 or 12 and lasts for about 3 years. For the United States, the second level starts with grade 7 and ends with grade 9.
- Education at the third level (upper secondary education) begins at about age 14 or 15 and lasts for about 3 years. For the United States, the third level starts with grade 10 and ends with grade 12.
- Education at the fifth level (non-university higher education) is provided at community colleges, vocational-technical colleges, and other degree-granting institutes whose programs typically take 2 years or more, but less than 4 years, to complete.
- Education at the sixth level (university higher education) is provided in undergraduate pro-

grams at 4-year colleges and universities in the United States and, generally, at universities in other countries. Completion of education at the third level (upper secondary education) is usually required as a minimum condition of admission, and admission is, in many cases, competitive.

- Education at the seventh level (graduate and professional higher education) is provided in graduate and professional schools that generally require a university diploma as a minimum condition for admission.
- Education at the ninth level (undistributed) is a classification reserved for enrollments, expenditures, or programs that cannot be unambiguously assigned to one of the aforementioned levels. Some countries, for example, assign non-graded special education or recreational non-degree adult education programs to this level. Other countries assign nothing to this level, preferring instead to allocate enrollments, expenditures, and programs to levels as best they can.

How expenditures are compared across countries

To compare expenditures per student in the United States to expenditures per student in other countries, expenditures must be denominated in a common currency. Conversion of other countries' expenditures to U.S. dollars facilitates comparison with expenditures in the United States. There are at least two methods of conversion: 1) market exchange rates and 2) Purchasing Power Parity (PPP) indices.

The market exchange rate is the rate at which an individual can exchange the currencies of two countries. It is determined by relative confidence in the governments, their monetary systems, and the economies of the two countries and by the relative demand for the goods and services that the two countries trade. Market exchange rates can be highly volatile.[1]

PPP indices are calculated by comparing the cost of a fixed market basket of goods in each country. Changes over time in a PPP index are determined by the rates of inflation in each country. Since PPP indices are less volatile than market exchange rates, they were used here to adjust expenditures and GDP figures.[2]

Because the fiscal year has a different starting month in different countries, within-country GDP consumer price deflators from the OECD National Accounts database were used to adjust education expenditures where the national financial year does not coincide with the calendar year 1994.

Problems in comparing education expenditures across countries

Comparing national expenditures on education can be difficult because the data are dependent on numerous factors, including the size of the economy, the population, and enrollment rates. In addition, the coverage and character of the education expenditure data that countries submit to the OECD vary somewhat. Sometimes an individual expenditure item may be included in the expenditure data from one country, but may not be included in those from another. Below, we examine some of the problems that exist in comparing education expenditures across countries.

Size of the economy: Because GDP levels are the measure against which education expenditures are compared in this analysis, a country's wealth has a significant effect on the amount of resources that can be devoted to education.

Size of the population: The youth population, constituting those between the ages of 5 and 29, is the population that demands the investment of resources in education and training. The greater this population is, the more a country has to spend on education; the smaller the population is, the less a country has to spend on education.

Enrollment rates: Enrollment rates also affect the amount of resources a country needs to invest in education. The proportion of persons between the ages of 5 and 29 who are enrolled either full time or part time in early childhood, primary, secondary, or higher education varies widely across countries. For example, this proportion ranges from less than 32 percent in Germany, Luxembourg, Sweden, and Switzerland to more then 50 percent in Turkey and Mexico.[3]

Discrepancies in expenditure data arise because one country may collect certain kinds of data that another country either does not collect, or does not collect in its "education" data collections. Or, one country may define what constitutes an "education" expenditure differently than another country does. Discrepancies between which expenditure items are included in one country's expenditure figures and not in another's tend to arise in four general domains:

Non-instructional (ancillary) services: Some countries provide fewer ancillary services in their schools and, thus, include fewer expenditures for such services in their education expenditure figures. Examples of ancillary services are school cafeterias; dormitories; intramural school sports programs; school health clinics or visiting school nurse services; attendance (i.e., truancy) services; and speech or psychological therapy services. U.S. schools tend to subsidize relatively more ancillary services through their education budgets than do schools in most other countries. In some countries (e.g., Germany), *none* of the aforementioned services are provided at the primary and lower secondary levels by many schools.

Private expenditures: Some countries' education systems receive large private contributions. The most common forms of private contributions to education are student tuition or fees; organizational subsidies, such as those provided by religious denominations to their own schools; and corporate in-kind contributions, such as those provided by German and Austrian firms to fund vocational courses on the shop floor for participating youth apprentices. Most national education statistics collections attempt to include estimates for such expenditures. However, other private expenditures may be overlooked more often by education data gatherers. Students' or parents' own spending on school supplies, or community organizations' charitable grants and loans to individual students, for example, can only be estimated with the help of household expenditure surveys and diligent perusal of statistical collections outside the domain of traditional educational institutions.

The boundaries of education: Fewer (though, still some) inconsistencies arise when comparing the *instructional* expenditures for *primary* and *secondary* public education in the *academic* track. But, the "borderlands" of education, in particular, tend to cause comparability problems. These borderlands include early childhood education and day care, special education, adult education, vocational/technical education, and proprietary education. Some countries, for example, simply do not collect expenditure data for private "center-based" day care because they do not define this as "education." Indeed, in some countries, even public day care is not managed by education authorities; rather, it is the responsibility of human services departments.

The exact location of each "boundary" also varies from country to country and even within each country. In Canada, for example, vocational students in Québec enter vocational/technical college in the 12th grade, while in the other Canadian provinces with vocational/technical colleges, they enter in the 13th or 14th grade. Thus, vocational/technical students in the other provinces spend another year or two at the upper secondary level. The more time the average student spends in a level of education, the greater will be the expenditures at that level.

University research: Because university spending includes substantial expenditures on research, comparing expenditures on higher education can often be misleading. The proportion of total university spending that is invested in research varies widely, specifically because of variations in the proportion of total national research and development (R & D) that is performed within the domain of higher education institutions.

In addition to variations among countries regarding the production of R & D, countries have not reported their research spending to the same extent when submitting data that were used for this indicator. For example, some countries exclude separately funded or budgeted research, while others include nearly all research outlays by institutions of higher education, when reporting higher education expenditure figures.

Even these four domains do not include all the possible comparability problems. There remain, for example, inconsistencies in how different countries treat public contributions to teacher retirement and fringe benefits, student financial aid, and hospitals.

NCES sponsored a study designed to examine the comparability of national figures on education expenditures. The two-volume study, entitled the *International Education Expenditure Comparability Study*, involved 10 countries and examined in detail the content of the education expenditure data they reported to the OECD.[4]

Thus far, participating education ministries have been receptive to the idea of improving comparability in the OECD data collection. Indeed, some countries had already modified their data submissions to the OECD for the 1993–94 school year, thus improving the comparability of education expenditures across countries for the data used for *The Condition of Education, 1998*. Further improvements were made to the data submissions to the OECD for the 1994–95 school year, the data used for this report. These changes were motivated in part by

preliminary findings from the NCES expenditure comparability studies.[5]

NOTES:

[1] For a further argument against using market exchange rates, see Edith M. Rasel and Lawrence Mishel, *Short-changing Education*, Economic Policy Institute, January 1990.

[2] PPP indices for other aggregates such as private consumption expenditures are available. See Stephen M. Barro, *International Comparisons of Education Spending: Some Conceptual and Methodological Issues*, SMB Economic Research, Inc., April 1990, for a discussion of the strengths and weaknesses of using various indices.

[3] Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at A Glance: OECD Indicators*. Author: Paris, France, 1997, p. 57.

[4] U.S. Department of Education, National Center for Education Statistics. *International Education Expenditure Comparability Study: Final Report*, Volume I, Working Paper No. 97–16, by Stephen M. Barro, and Volume II, Working Paper 97–17, by Joel D. Sherman and Richard P. Phelps, Project Officer, Shelley Burns. Washington, D.C.: 1997.

[5] Stephen M. Barro. *Preliminary Findings from the Expenditure Comparability Study*. SMB Economic Research, Inc., June 1993.

Table 57-1 Average annual salaries (in 1997 constant dollars) of public elementary and secondary teachers: School years ending 1960–97

School year ending	All teachers	Elementary teachers	Secondary teachers	Beginning teachers*
1960	$27,303	$26,319	$28,839	—
1962	29,468	28,533	30,857	—
1964	31,219	30,229	32,630	—
1966	32,642	31,605	34,031	—
1968	35,056	34,041	36,327	—
1970	36,675	35,765	37,802	—
1971	37,471	36,472	38,683	—
1972	37,879	36,782	39,151	$26,779
1973	38,171	37,117	39,420	—
1974	37,099	36,193	38,157	24,523
1975	36,099	35,147	37,212	—
1976	36,490	35,563	37,466	24,305
1977	36,543	35,544	37,697	—
1978	36,408	35,502	37,444	23,437
1979	35,245	34,422	36,225	—
1980	33,039	32,209	34,051	20,771
1981	32,713	31,945	33,636	—
1982	32,894	32,175	33,800	20,961
1983	33,864	33,099	34,840	—
1984	34,612	33,905	35,589	22,070
1985	35,837	35,229	36,728	—
1986	37,192	36,482	38,147	24,459
1987	38,363	37,623	39,337	—
1988	38,867	38,153	39,927	25,328
1989	39,179	38,461	40,046	—
1990	39,675	38,999	40,538	25,356
1991	39,678	38,966	40,652	—
1992	39,584	38,905	40,472	25,996
1993	39,473	38,708	40,432	25,864
1994	39,250	38,701	40,153	25,946
1995	39,092	38,531	39,941	25,779
1996	39,045	38,438	39,942	25,760
1997	38,921	38,375	39,731	25,462

— Not available.

* Salaries of beginning teachers are for the calendar year.

NOTE: Some data are revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1997*, table 77. American Federation of Teachers, *Survey and Analysis of Salary Trends 1997*, February 1998, table III-2.

Table 58-1 Percentage of public secondary students in selected subjects taught by teachers without selected qualifications, by percentage of students eligible for free or reduced-price lunch and class subject: School year 1993–94

Class subject	Percentage of students eligible for free or reduced-price lunch 0–5	6–20	21–40	41–100
		Did not major in class subject		
English	17.5	23.4	26.4	28.8
Social sciences	11.0	13.3	15.9	19.5
Mathematics	26.7	28.4	34.7	39.9
Science	16.3	18.0	18.0	26.2
Foreign languages	19.6	15.9	25.5	17.9
Visual and performing arts	10.3	12.1	18.5	14.9
Health and physical education	8.8	8.4	9.2	10.1
Vocational education	16.4	17.4	18.4	21.6
		Did not major or minor in class subject		
English	11.6	17.3	16.1	18.5
Social sciences	8.2	6.0	8.5	12.8
Mathematics	16.7	20.3	23.9	25.9
Science	8.0	9.9	8.5	13.5
Foreign languages	10.6	8.8	13.7	12.0
Visual and performing arts	9.8	10.8	16.1	14.4
Health and physical education	6.1	7.3	6.6	7.3
Vocational education	14.5	15.8	17.7	19.4
		Not certified in class subject		
English	6.0	8.8	10.1	13.2
Social sciences	7.7	12.2	10.6	13.9
Mathematics	10.7	12.4	14.0	21.2
Science	6.9	5.7	11.2	13.4
Foreign languages	12.8	9.1	12.6	16.6
Visual and performing arts	7.5	12.2	13.1	16.1
Health and physical education	6.5	8.8	8.5	10.4
Vocational education	9.5	10.9	13.2	13.0

NOTE: See the supplemental note to this indicator for the definition of student percentages, certification in class subject, and major/minor in class subject.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher Questionnaire).

Table 58-2 Percentage of secondary students in selected subjects taught by teachers without selected qualifications, by control of school, percentage of minority students enrolled in school, and class subject: School year 1993–94

Class subject	Public				Private			
	0–4	5–19	20–49	50–100	0–4	5–19	20–49	50–100
				Did not major in class subject				
English	21.9	20.9	26.5	28.3	19.5	26.0	27.1	36.0
Social sciences	14.0	13.2	15.8	15.7	4.4	19.7	4.1	(*)
Mathematics	25.4	28.6	34.4	39.1	23.2	41.3	37.1	40.6
Science	18.6	12.9	21.7	23.3	16.8	11.6	19.4	(*)
Foreign languages	18.5	19.9	22.2	13.3	29.1	34.7	29.2	(*)
Visual and performing arts	10.8	12.8	13.3	20.5	9.5	23.6	13.5	(*)
Health and physical education	9.0	7.5	8.7	9.8	(*)	13.6	19.9	(*)
Vocational education	13.8	16.8	22.7	26.6	25.7	40.2	(*)	(*)
				Did not major or minor in class subject				
English	15.8	14.0	18.1	17.4	12.9	23.1	21.1	27.8
Social sciences	7.3	7.2	8.1	10.4	3.6	15.6	2.6	(*)
Mathematics	18.0	19.3	22.3	27.7	17.3	31.8	28.6	38.1
Science	9.1	6.9	12.1	11.2	7.5	6.6	11.3	(*)
Foreign languages	7.7	11.1	14.3	8.7	23.2	27.0	21.6	(*)
Visual and performing arts	10.2	11,3	12.0	18.6	8.8	20.2	7.7	(*)
Health and physical education	6.4	5.5	6.9	8.4	(*)	13.6	11.1	(*)
Vocational education	11.7	15.8	21.7	22.1	24.5	40.2	(*)	(*)
				Not certified in class subject				
English	7.9	7.9	10.2	12.3	20.7	37.9	38.9	43.5
Social sciences	10.0	9.2	13.9	12.7	21.2	40.3	27.5	(*)
Mathematics	10.3	12.6	13.7	20.9	39.6	43.5	51.6	59.4
Science	7.4	7.3	6.7	14.5	16.3	23.8	54.7	(*)
Foreign languages	8.6	10.9	11.5	15.1	43.7	44.3	50.0	(*)
Visual and performing arts	10.4	12.0	12.3	16.6	28.8	50.0	34.6	(*)
Health and physical education	7.7	7.7	8.4	9.6	(*)	35.1	33.7	(*)
Vocational education	10.4	9.4	14.2	12.4	25.9	43.7	(*)	(*)

* Too few sample observations for a reliable estimate.

NOTE: See the supplemental note to this indicator for the definition of student percentages, certification in class subject, and major/minor in class subject.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public and Private School Teacher questionnaires).

Note to Indicator 58: Definition of student percentages, certification in class subject, and major/minor in class subject

Indicator 58 reports the percentages of students taught by full-time teachers who had not majored or minored or become certified in the subject field that they were teaching. These values were calculated from Schools and Staffing Survey Public and Private School Teacher questionnaire information on the number of classes teachers taught, the number of students the teachers had in each class, the subject matter taught in each class, and the teachers' education and certification. The information obtained from each teacher was weighted to properly represent national levels.

For example, the following procedure was used to calculate the percentage of mathematics students taught by non-certified mathematics teachers. First, for each full-time teacher who reported teaching a mathematics class, the weighted number of students in each class was summed to get an estimate of the total number of mathematics students who were taught by these teachers. Next, for each full-time teacher who was not certified to teach mathematics, the weighted number of students in each mathematics class was summed to get an estimate of the number of mathematics students taught by non-certified teachers. Finally, the estimated number of mathematics students taught by non-certified teachers was divided by the estimated total number of mathematics students. The percentages reported in each of the tables in this analysis were calculated by limiting the selection to specific subjects and specific school and teacher characteristics.

There are many ways to match a major/minor field of study with a class subject. One method is to include both the general or specific field and the education major/minor parallel field as a match for a specific class subject. For example, a general definition of a teacher who majored or minored in mathematics or mathematics education could be defined as having majored or minored in the subject of mathematics. A more strict definition would exclude the mathematics teachers who majored or minored in mathematics education. The more general definition is used for all the core subjects in all the tables in this analysis.

Class subjects excluded from the text table and supplemental tables

Some classes are excluded from this analysis because it was difficult to match each class subject matter to the appropriate major/minor, or as in the case of computer science, a major/minor in the field has existed for only a few years. The following subject matters were excluded from the tables in this analysis: computer science, driver education, religion, philosophy, and unspecified.

Certification in class subject

Certification in this analysis is defined as having advanced, standard, or probationary certification by a state or a full certification by an accrediting body other than a state. Teachers with a temporary or emergency certification were classified as not certified in this analysis.

The table below shows teacher certifications classified by class subject. Teachers were classified as being certified in a class subject if they were certified in an assignment field (shown in the right-hand column) that corresponds to the subject matter (listed in the left-hand column).

Class subject(s)	Certification in assignment field(s)
English	English/language arts, reading, bilingual education, English as a second language
Social sciences	Social studies/social sciences (including history), American Indian/Native American studies
Mathematics	Mathematics
Natural sciences	Geology/earth science, space science education, physical science, general science and all other sciences (e.g., biology/life science, chemistry, physics)
Foreign languages	French, German, Latin, Russian, Spanish, other foreign languages, English as a second language

Class subject(s)	Certification in assignment field(s)
Health and physical education	Health, physical education
Vocational education	Accounting, agriculture, business, marketing, health occupations, industrial arts, trade and industry, technical, other vocational/technical education, home economics, journalism

Majored or minored in class subject

Teachers were classified as having majored or minored in a class subject if they majored or minored in a field (shown in the right-hand column) that corresponds to the class subject (listed in the left-hand column). Both undergraduate and graduate level degrees were considered in determining if a match had occurred.

Class subject(s)	Major/minor field(s)
English	English/language arts, reading, bilingual education, English as a second language
Social sciences	Social studies/social sciences education, cross-cultural education, area and ethnic studies, psychology, public affairs, economics, history, political science and government, sociology, other social sciences
Mathematics	Mathematics, mathematics education, engineering, physics
Natural sciences	Geology/earth science, science education, biology/life science, chemistry, and physics
Foreign languages	French, German, Latin, Russian, Spanish, other foreign languages, foreign language education, bilingual education, English as a second language
Visual and performing arts	Art, dance, drama/theater, music
Health, physical education	Health professions and occupations, physical education/health education
Vocational education	Agricultural education, home economics education, industrial arts, vocational and technical, trade and industrial education, agricultural and natural resources, business and management, business, commerce, and distributive education, communications and journalism

Table 59-1 Change in teaching status of full-time teachers between the 1993–94 and 1994–95 school years, by control of school and age of teacher

Age of teacher	Public				Private			
	Percentage distribution	Teaching at same school	Moved to another school	Left teaching	Percentage distribution	Teaching at same school	Moved to another school	Left teaching
Total	**100.0**	**87.2**	**6.7**	**6.1**	**100.0**	**83.8**	**6.0**	**10.2**
Younger than 25	1.5	83.2	14.4	2.4	4.1	69.7	13.2	17.1
25–29	9.9	76.6	13.5	9.9	14.8	77.5	10.5	12.0
30–39	23.7	85.7	8.0	6.3	24.8	77.5	8.1	14.5
40–49	39.9	91.1	5.4	3.5	34.8	88.2	4.1	7.7
50–59	21.6	90.1	4.5	5.4	16.7	93.1	2.4	4.5
60–64	2.6	67.4	1.6	31.0	3.4	87.6	(*)	10.4
65 and older	0.7	64.8	(*)	32.4	1.4	73.6	(*)	24.0

* Too few sample observations for a reliable estimate.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94, and the Teacher Follow-up Survey, 1994–95.

Table 59-2 Change in teaching status of teachers between the 1993–94 and 1994–95 school years, destination of leavers, and reasons for leaving, by control of school and work status

Teaching status, destination, and reasons for leaving	Public			Private		
	Total	Full time	Part time[1]	Total	Full time	Part time[1]
			Teaching status			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Left teaching	6.6	6.1	11.1	11.9	10.2	18.8
Moved to another school	7.2	6.7	12.1	5.8	6.0	4.8
Teaching at same school	86.3	87.2	76.8	82.3	83.8	76.4
			Destination of leavers			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Working in education	21.1	14.0	60.0	11.9	9.7	16.8
Working outside education	20.3	21.0	16.7	34.1	33.4	35.5
Attending college	2.4	2.5	1.6	8.6	9.1	7.4
Homemaking/child rearing	16.2	17.3	9.9	17.1	20.3	10.2
Retired	27.0	30.8	6.6	10.8	8.9	14.9
Disabled	1.7	1.9	([2])	1.8	0.9	([2])
Other	11.3	12.4	5.1	15.7	17.7	11.6
			Reasons for leaving			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Family or personal move	10.1	11.4	2.6	16.2	18.9	10.5
Pregnancy/child rearing	14.3	15.6	7.3	10.2	12.1	6.1
Health	4.7	5.3	1.4	4.0	2.3	7.6
Retirement	27.3	31.0	7.4	9.3	5.7	17.1
To pursue another career	12.1	7.3	38.1	16.3	15.5	18.0
For better salary or benefits	6.5	6.1	8.4	7.7	7.1	9.0
To take courses to improve career opportunities in the field of education	6.1	3.6	19.6	6.3	6.6	5.5
To take courses to improve career opportunities outside the field of education	0.5	0.6	([2])	0.8	([2])	([2])
School staffing action	3.2	2.9	4.3	8.2	6.4	12.2
To take a sabbatical or other break from teaching	3.4	3.7	1.8	4.9	6.8	0.9
Dissatisfied with teaching as a career	5.3	5.3	5.5	5.0	6.4	1.9
Other family or personal reason	6.6	7.2	3.5	11.1	11.9	9.6

[1] Data have high coefficients of variation; interpret with caution.

[2] Too few sample observations for a reliable estimate.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94, and the Teacher Follow-up Survey, 1994–95.

Table 59-3 Change in teaching status of teachers between the 1993–94 and 1994–95 school years, destination of leavers, and selected reasons for leaving, by control and level of school and work status

Teaching status, destination, and selected reasons for leaving	Public			Private		
	Total	Full time	Part time[1]	Total	Full time	Part time[1]
Elementary						
Teaching status						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Left teaching	6.4	5.8	11.0	11.5	10.3	16.8
Moved to another school	7.6	7.1	11.6	6.1	6.2	5.7
Teaching at same school	86.0	87.1	77.5	82.4	83.5	77.5
Destination of leavers						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Working in education	25.7	16.1	64.2	8.9	5.7	17.4
Working outside education	12.8	12.5	14.2	30.3	32.1	25.6
Attending college	2.0	2.1	1.4	10.2	12.0	5.4
Homemaking/child rearing	16.8	18.2	11.1	16.2	18.5	10.2
Retired	28.4	34.6	3.3	14.3	10.6	23.9
Disabled	0.5	0.6	(2)	2.3	(2)	(2)
Other	13.9	15.9	5.9	17.8	20.8	10.2
Reasons for leaving						
Retirement	27.4	33.4	3.2	10.6	5.9	22.7
Family or personal move	11.2	13.2	3.2	15.0	18.1	7.0
To pursue another career	14.9	8.4	40.9	16.3	14.1	22.0
Pregnancy/child rearing	16.3	18.5	7.6	13.7	16.4	6.7
Dissatisfied with teaching as a career	2.8	3.0	2.1	4.2	5.7	(2)
Secondary						
Teaching status						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching at same school	86.6	87.4	75.5	82.2	84.2	75.0
Moved to another school	6.7	6.2	13.1	5.2	5.7	3.7
Left teaching	6.7	6.4	11.4	12.6	10.1	21.3
Destination of leavers						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Working in education	16.4	11.9	52.0	15.9	15.7	16.2
Working outside education	28.2	29.0	21.5	38.9	35.3	45.0
Attending college	2.8	2.9	1.8	6.5	4.8	9.4
Homemaking/child rearing	15.6	16.5	7.8	18.3	23.2	10.3
Retired	25.6	27.2	12.9	6.2	6.2	6.2
Disabled	2.9	3.2	(2)	(2)	(2)	(2)
Other	8.6	9.2	3.6	13.0	13.0	13.0
Reasons for leaving						
Retirement	27.3	28.7	15.5	7.7	5.3	11.7
Family or personal move	8.9	9.8	1.6	17.7	20.1	13.9
To pursue another career	9.1	6.2	32.8	16.4	17.7	14.1
Pregnancy/child rearing	12.2	12.9	6.8	5.6	5.6	5.6
Dissatisfied with teaching as a career	7.9	7.4	11.9	6.0	7.5	3.5

[1] Data have high coefficients of variation; interpret with caution.

[2] Too few sample observations for a reliable estimate.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94, and the Teacher Follow-up Survey, 1994–95.

Table 60-1 Percentage of postsecondary instructional faculty and staff, by employment status and control and type of institution: Fall 1987 and 1992

Employment status	Total	Control of institution		Type of institution					
		Public	Private	Research	Doctoral	Compre-hensive	Liberal arts	2-year	Other
					Fall 1987				
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Part time	33.1	32.2	34.9	16.7	24.3	29.8	32.6	51.5	52.1
Full time	66.9	67.8	65.1	83.3	75.7	70.2	67.4	48.5	47.9
					Fall 1992				
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Part time	41.6	41.4	42.2	23.4	32.6	38.6	35.7	60.2	37.8
Full time	58.4	58.6	57.8	76.6	67.4	61.4	64.3	39.8	62.2

NOTE: Details may not add to totals due to rounding. See the supplemental note to this indicator for a description of types of institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Note to Indicator 60: Part-time instructional faculty at postsecondary institutions

The 1988 National Study of Postsecondary Faculty (NSOPF) surveyed faculty who had at least some instructional duties (such as teaching one or more courses) in for-credit higher education courses during the fall 1987 term.

Unlike NSOPF-88, which was limited to faculty whose regular assignments included instruction, the faculty universe for NSOPF-93 was expanded to include anyone who was designated as faculty, whether or not their responsibilities included instruction, as well as other (non-faculty) personnel with instructional responsibilities.

This analysis includes all those who had any instructional duties in the fall of 1987 and 1992. Therefore, it includes those faculty whose principal activity that semester was research oriented, technical, clinical, service oriented, or administrative, as long as the faculty member taught at least one class for credit. In fact, in fall 1992, 15 percent of all faculty who taught at least one class for credit had a principal activity other than teaching.

The NSOPF-93 data for the employment status of instructional faculty and staff reflect a substantial increase from the NSOPF-88 data in the percentage of instructional faculty and staff who were employed part time, and conversely, a decrease in the percentage of instructional faculty and staff who were employed full time. Although the increase in the proportion of part-time faculty supports other findings that point to this practice as a way for colleges and universities to reduce costs, the reader is cautioned not to put too much emphasis on the exact change in percentage of part-time instructional faculty and staff between fall 1987 and fall 1992. NSOPF-93 data were collected and weighted differently than NSOPF-88 data, a factor that could produce differences in results.

For the analyses in this volume that show data from NSOPF, institutions of higher education were categorized into five types, as shown below. Remaining institutions, such as religious or specialized institutions, were included in the totals but are not shown separately.

Types of institutions

Research university: An institution among the 100 leading universities that receives federal research funds. Each of these universities awards a substantial number of doctor's degrees in many fields.

Doctoral university: An institution that offers a full range of bachelor's degree and doctor's degree programs in at least three disciplines, but tends to be less focused on research and receives fewer federal research dollars than the research universities.

Comprehensive institution: An institution that offers liberal arts and professional programs. The master's degree is the highest degree typically offered.

Liberal arts institution: An institution that is smaller and generally more selective than comprehensive colleges and universities. A liberal arts institution primarily offers bachelor's degrees, although some offer master's degrees.

2-year institution: An institution that offers certificate or degree programs through the associate of arts level. Two-year institutions, with few exceptions, offer no bachelor's degrees.

Other: An institution that offers degrees ranging from bachelor's to doctor's, with at least half of the degrees awarded in a single discipline. These include institutions whose primary purpose is to offer religious instruction or train members of the clergy; other separate health professional schools that award most of their degrees in fields such as chiropractic, nursing, pharmacy, or podiatry; schools of engineering and technology; schools of business and management; schools of art, music, and design; schools of law; teachers colleges; other specialized institutions such as graduate centers, maritime academies, military institutions, and institutions that do not fit into other classifications; and tribal colleges and universities, most of which are tribally contracted and located on reservations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Faculty in Higher Education Institutions, 1988*

Standard Error Tables

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General information about standard errors

The information presented in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected using many research methods, including surveys of a universe (such as all school districts) or of a sample, compilations of administrative records, and statistical projections. Users of *The Condition of Education* should take particular care when comparing data from different sources. Differences in procedures, timing, phrasing of questions, interviewer training, and so forth mean that the results are not strictly comparable. Following the general discussion of data accuracy below, descriptions of the information sources and data collection methods are presented, grouped by sponsoring organization. More extensive documentation of procedures used in one survey as compared to another does not imply more problems with the data, only that more information is available.

Unless otherwise noted, all statements cited in the text were tested for statistical significance and are statistically significant at the .05 level. Several test procedures were used. The procedure used depended upon the type of data interpreted and the nature of the statement tested. The most commonly used test procedures were 1) *t*-tests, 2) multiple *t*-tests with a Bonferroni adjustment to the significance level, 3) linear trend tests, and 4) sign tests. When a simple comparison between two sample estimates was made, for example, between the first and last years in a time series or between males and females, a *t*-test was used. When multiple comparisons between more than two groups were made, and even if only one comparison is cited in the text, a Bonferroni adjustment to the significance level was made to ensure that the significance level for the tests as a group was at the .05 level. The Bonferroni adjustment is commonly used when making comparisons between racial/ethnic groups and between the United States and other countries. A linear trend test was used when a statement describing a trend, such as the growth of enrollment rates over time, was made or when a statement describing a relationship, such as the relationship between a parent's educational attainment and a student's reading proficiency, was made. A sign test was used when a statement describing a consistent pattern of differences over the years was made.

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. In addition to such sampling errors, all surveys, both universe and sample, are subject to design, reporting, and processing errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures; however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

The estimated standard error of a statistic is a measure of the variation due to sampling and can be used to examine the precision obtained in a particular sample. The sample estimate and an estimate of its standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. If all possible samples were selected, and each was surveyed under the same conditions, and an estimate and its standard error were calculated from each sample, then approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the actual value; 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the actual value; and 99 percent of all intervals from 2.5 standard errors below the estimate to 2.5 standard errors above the estimate would include the actual value. These intervals are called 90 percent, 95 percent, and 99 percent confidence intervals, respectively.

To illustrate this further, consider the text table for *Indicator 1* and the standard error table S1 for estimates from the National Household Education Survey (NHES). For the 1996 estimate of the percentage of 3-year-olds enrolled in center-based programs and kindergarten (36.7 percent), table S1 shows a standard error of 1.3. Therefore, we can construct a 95 percent confidence interval from 34.1 to 39.3 (36.7 ± 2 x 1.3). If this procedure was followed for every possible sample, about 95 percent of the intervals would include the actual percentage of 3-year-olds enrolled in center-based programs and kindergarten.

The estimated standard errors for two sample statistics can be used to estimate the precision of the difference between the two statistics and to avoid concluding that there is an actual difference when the difference in sample estimates may only be due to sampling error. The need to be aware of the precision of differences arises, for example, when comparing mean proficiency scores between groups or years in the National Assessment of Educational Progress (NAEP) or when comparing percentages between groups or years in the Current Population Survey (CPS). The standard error (se) of the difference between sample estimate A and sample estimate B (when A and B do not overlap) is

$$se_{A-B} = \sqrt{se_A^2 + se_B^2}$$

When a ratio (called a *t*-statistic) of the difference between the two sample statistics and the standard error of the difference as calculated above is less than 2, one cannot be sure that the difference is not due only to sampling error, and caution should be taken in drawing any conclusions about the difference. In this report, for example, using the rationale above, we would not conclude that there is a difference between the two sample statistics. Some analysts, however, use the less restrictive criterion of a *t*-statistic value of 1.64, which corresponds to a 10 percent significance level.

To illustrate this further, consider the data on event dropout rates of those ages 15–24 in grades 10–12 in the text table of *Indicator 6* and the associated standard error table S6. The estimated event dropout rate for these people was 6.1 percent in 1972. For the (new) sample in 1996, the estimated event dropout rate was 5.0 percent. Is there enough evidence to conclude that the actual event dropout rate for all people in grades 10–12 ages 15–24 decreased by 1.1 percentage points between 1972 and 1996? The standard errors for these two estimates are 0.2 and 0.4, respectively. Using the above formula, the standard error of the difference is calculated as 0.45. The ratio of the estimated difference of 1.1 percentage points to the standard error of the difference of 0.45 is 2.46. Using the table below, we see that there is less than a 5 percent chance that the 1.1 percentage point difference is due only to sampling error, and one may conclude that the event dropout rate of those ages 15–24 in grades 10–12 decreased between 1972 and 1996.

Percent chance that a difference is due only to sampling error:

t-statistic	1.00	1.64	1.96
Percent chance	32	10	5

It should be noted that most of the standard errors presented in this report and in the original documents are approximations. That is, to derive estimates of standard errors that would applicable to a wide variety of items and that could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

The preceding discussion on sampling variability was directed toward a situation concerning one or two estimates. Determining the accuracy of statistical projections is more difficult. In general, the further away the projection date is from the date of the actual data being used for the projection, the greater the possible error in the projection. If, for instance, annual data from 1980 to 1995 are used to project enrollment in elementary and secondary education, the further beyond one projects, the more variability in the projection. The enrollment projection for the year 2002 will be less certain than the projection for 1997. A detailed discussion of the projections methodology is contained in *Projections of Education Statistics to 2007* (National Center for Education Statistics 1997).

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors can arise in various ways, including 1) from respondents or interviewers interpreting questions differently; 2) from respondents estimating the values that they provide; 3) from partial to total nonresponse; 4) from imputation or reweighting to adjust for nonresponse; 5) from inability or unwillingness on the part of respondents to provide correct information; 6) from recording or keying errors; or 7) from overcoverage or undercoverage of the target universe.

Sampling and nonsampling error combine to yield total survey error. Since estimating the magnitude of nonsampling errors would require special experiments or access to independent data, their magnitudes are seldom available. In almost all situations, the sampling error represents an underestimate of the total survey error, and thus an overestimate of the precision of the survey estimates.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both partial and total. An adjustment made for either type of nonresponse is often referred to as an imputation—substitution of the "average" questionnaire response for the nonresponse. Imputations are usually made separately within various groups of sample members, which have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics that are similar to those of the nonrespondent. In editions prior to the 1992 edition of *The Condition of Education*, when reporting race-specific data from the CPS, Hispanics were usually included among whites and blacks (i.e., "Hispanics may be of any race"). Beginning with the 1992 edition of the report, racial/ethnic data from the CPS excludes Hispanics from whites and blacks (e.g., whites are non-Hispanic whites and blacks are non-Hispanic blacks).

Unless otherwise noted, all dollar values in this volume are expressed in 1997 constant dollars. The Consumer Price Index (CPI) is used to convert current dollars for earlier years to 1997 dollars. The CPI for calendar year 1997 is 160.6. See table 38 in *Digest of Education Statistics, 1997* (National Center for Education Statistics 1997) for CPI adjustments.

How to obtain standard errors for the supplemental tables

Estimates of standard errors for the statistics in the supplemental tables are available in *The Condition of Education 1998, Supplemental and Standard Error Tables*, 1998.

Table S1 Standard errors for the text table in *Indicator 1*

Selected student characteristics	3-year-olds				4-year-olds				5-year-olds			
	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	**1.2**	**1.2**	**1.5**	**1.3**	**1.2**	**1.1**	**1.5**	**1.3**	**0.7**	**0.8**	**0.8**	**1.0**
Race/ethnicity												
White	1.3	1.3	2.3	1.9	1.3	1.3	2.0	1.8	0.9	1.1	1.0	1.4
Black	3.7	3.4	4.2	4.4	3.8	3.5	4.3	3.5	1.6	1.8	2.4	1.9
Hispanic	2.6	3.2	2.5	3.4	3.7	3.3	2.9	3.8	2.4	2.2	1.7	2.8
Household income												
$10,000 or less	3.3	3.9	3.8	3.2	3.9	2.8	4.0	4.6	2.2	2.6	2.8	3.2
10,001–20,000	2.6	3.4	3.7	4.2	2.8	2.9	4.1	4.3	1.9	2.3	2.6	3.2
20,001–35,000	1.8	2.0	2.8	3.0	2.5	2.3	2.8	2.5	1.9	1.6	1.5	2.2
35,001–50,000	1.9	2.7	3.4	3.9	1.9	2.9	3.0	3.7	1.3	1.7	2.1	2.0
50,001 or more	2.4	2.1	3.0	2.8	2.2	2.0	2.3	2.4	1.4	1.1	1.6	1.6
Parents' highest education level												
Less than high school diploma	2.9	4.0	3.7	5.9	3.9	4.5	5.9	5.0	2.5	4.0	2.5	4.1
High school diploma or GED	1.8	2.1	2.5	2.5	2.1	2.1	2.7	3.2	1.4	1.5	1.6	2.1
Some college/vocational/technical	2.2	2.1	2.6	2.5	2.1	2.0	2.8	2.7	1.5	1.8	1.7	2.0
Bachelor's degree	3.1	3.3	3.6	3.9	2.4	2.9	3.6	3.7	2.0	1.8	1.6	2.4
Graduate/professional school	3.4	3.2	5.0	4.6	3.5	3.1	3.1	3.5	2.3	1.3	2.9	2.7
Family structure												
Two biological or adoptive parents	—	1.4	1.8	1.5	—	1.5	1.7	1.7	—	0.9	1.0	1.4
One biological or adoptive parent	—	3.0	3.2	3.3	—	2.4	3.3	3.2	—	1.7	1.3	2.0
One biological/adoptive and one step parent	—	7.0	8.8	8.5	—	6.2	6.6	9.7	—	3.9	4.7	2.7
Other relatives	—	9.5	7.3	8.0	—	10.9	10.2	13.0	—	6.5	7.8	3.0

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Table S2 Standard errors for the text table in *Indicator 2*

Selected characteristics	Read to three or more times in the past week			Told a story at least once in the past week			Visited a library in the past month		
	1991	1995	1996	1991	1995	1996	1991	1995	1996
Total	**0.7**	**0.6**	**0.7**	**0.7**	**0.7**	**0.8**	**0.7**	**0.9**	**0.9**
School enrollment status and level									
Not enrolled	1.0	1.0	1.3	1.0	1.2	1.2	0.9	1.3	1.5
Center-based programs	1.3	1.0	1.2	1.2	1.1	1.2	1.2	1.1	1.5
Kindergarten	1.3	1.1	1.3	1.3	1.3	1.5	1.4	1.5	1.7
Race/ethnicity									
White	0.7	0.6	0.9	0.8	0.8	0.9	0.9	1.1	1.3
Black	2.0	1.9	2.3	2.1	2.5	2.5	1.8	2.3	2.3
Hispanic	2.8	2.0	2.4	2.1	1.7	2.2	1.8	1.7	2.0
Parents' highest education level									
Less than high school diploma	2.4	3.0	3.5	2.4	2.8	3.7	2.0	2.2	2.9
High school diploma or GED	1.4	1.3	1.5	1.5	1.3	1.5	1.2	1.7	1.8
Some college/vocational/technical	1.2	1.2	1.2	1.3	1.2	1.2	0.8	1.9	1.7
Bachelor's degree	1.4	1.3	1.5	1.9	1.7	1.7	1.9	2.1	2.3
Graduate/professional school	1.1	1.2	1.0	1.6	1.5	2.0	2.3	2.2	2.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Table S3(a) Standard errors for the first text table in *Indicator 3*

Frequency of use	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Never	3.5	4.2	2.3	1.6	2.0	1.9	4.2	3.1	2.6	2.7	2.7	2.7	2.9	2.4	2.2	2.4	2.4	1.8
Less than once a week	1.8	2.1	1.5	2.0	1.4	2.1	3.6	2.0	1.7	2.1	2.1	2.5	2.6	2.1	2.0	2.1	2.0	1.6
Once a week	3.1	3.4	2.3	2.3	3.0	2.5	2.8	1.9	1.8	1.8	1.8	1.8	1.5	1.6	1.1	1.6	1.4	1.5
Two or three times a week	1.7	2.3	2.1	1.8	3.0	3.3	1.9	1.6	1.7	2.0	1.3	1.8	1.3	1.4	1.2	1.3	1.6	1.8
Every day	1.3	1.1	1.1	1.1	1.4	1.3	1.5	1.7	1.7	1.4	1.8	1.8	2.0	2.0	1.3	1.5	1.9	1.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Writing, 1984 to 1996*, 1998.

Table S3(b) Standard errors for the second text table in *Indicator 3*

	Grade 4						Grade 8						Grade 11					
Reason for use	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
To play games	3.7	2.5	1.9	1.6	1.8	1.3	3.7	1.7	1.7	1.7	1.4	1.6	2.5	1.7	1.4	1.8	2.0	1.6
To learn things	3.1	2.6	1.6	2.0	1.8	1.4	4.5	2.3	2.3	2.1	2.0	1.8	3.0	2.2	1.7	1.9	2.2	1.4
To write stories or papers	3.7	2.5	2.5	2.3	2.6	1.9	3.5	2.6	2.3	1.9	1.7	1.2	2.2	2.1	2.0	1.9	2.0	1.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Writing, 1984 to 1996*, 1998.

Table S4 Standard errors for the text table in *Indicator 4*

	Percentage of schools with Internet access				Percentage of instructional rooms with Internet access			
School characteristics	1994	1995	1996	1997	1994	1995	1996	1997
Total	**1.5**	**1.8**	**1.8**	**1.5**	**0.3**	**0.7**	**1.0**	**1.6**
Level of school								
Elementary	1.9	2.4	2.1	2.0	0.4	1.0	1.5	1.9
Secondary	2.4	2.7	1.8	1.7	0.6	1.0	1.5	2.0
Percentage of students eligible for free or reduced-price lunch								
Less than 11	—	3.5	3.6	3.3	—	1.6	2.9	4.2
11–30	—	3.6	3.1	2.8	—	1.8	2.0	2.3
31–70	—	2.9	3.2	2.4	—	1.6	1.8	2.7
71 or more	—	4.3	5.2	4.9	—	0.9	1.6	2.3
Percentage of minority students enrolled								
Less than 6	—	3.3	3.4	2.7	—	1.4	2.4	3.5
6–20	—	4.4	3.0	2.7	—	1.5	2.2	3.0
21–49	—	4.0	3.2	4.2	—	2.1	2.3	2.8
50 or more	—	3.8	4.6	4.7	—	1.0	1.5	1.9

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997 and "Internet Access in Public Schools," Issue Brief, February 1998.

Table S5 Standard errors for the text table in *Indicator 5*

Student characteristics	Attended summer school	Participated in other organized summer activities	Worked for pay	Participated in unpaid internship	Participated in community service
Total	**0.2**	**0.4**	**0.6**	**0.2**	**0.4**
Grade level					
1–7	0.3	0.6	—	—	—
8–10	0.5	0.8	0.5	0.2	0.5
11–12	0.7	0.9	1.0	0.3	0.6
Race/ethnicity					
White	0.3	0.5	0.7	0.2	0.5
Black	0.7	1.0	1.4	0.5	0.9
Hispanic	1.2	1.4	2.1	0.7	1.3
Parents' highest education level					
Less than high school diploma	0.7	0.7	1.3	0.4	0.7
High school diploma or GED	0.4	0.7	1.0	0.3	0.5
Some college	0.4	0.7	1.1	0.3	0.7
Bachelor's degree or higher	0.5	0.8	1.1	0.4	0.9

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Table S6 Standard errors for the text table in *Indicator 6*

October	Total	Sex		Race/ethnicity			Family income		
		Male	Female	White	Black	Hispanic	Low	Middle	High
1972	0.2	0.3	0.3	0.2	0.9	1.5	1.1	0.3	0.3
1974	0.2	0.4	0.3	0.3	1.0	1.4	—	—	—
1976	0.2	0.3	0.3	0.3	0.8	1.1	1.1	0.3	0.2
1978	0.3	0.4	0.3	0.3	1.0	1.5	1.2	0.4	0.3
1980	0.2	0.4	0.3	0.3	0.9	1.4	1.1	0.3	0.3
1982	0.3	0.4	0.4	0.3	1.0	1.6	1.3	0.4	0.3
1984	0.3	0.4	0.4	0.3	0.9	1.7	1.2	0.4	0.3
1986	0.3	0.4	0.4	0.3	0.9	2.4	1.1	0.4	0.3
1988	0.4	0.6	0.6	0.4	1.3	4.6	1.8	0.5	0.4
1990	0.3	0.5	0.5	0.4	1.1	2.3	1.4	0.4	0.3
1991	0.3	0.5	0.5	0.4	1.2	2.2	1.4	0.4	0.3
1992	0.4	0.5	0.5	0.4	1.1	2.2	1.4	0.5	0.4
1993	0.4	0.5	0.5	0.4	1.2	2.0	1.6	0.5	0.4
1994	0.4	0.5	0.5	0.4	1.2	2.2	1.6	0.5	0.4
1995	0.4	0.5	0.5	0.4	1.2	2.4	1.5	0.5	0.4
1996	0.4	0.5	0.5	0.4	1.2	2.1	1.5	0.5	0.4

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1996* (based on the October Current Population Surveys).

Table S7 Standard errors for the text table in *Indicator 7*

				Family income				Race/ethnicity				
				Low		Middle	High	White	Black		Hispanic	
		Type of institution			3-year					3-year		3-year
October	Total	2-year	4-year	Annual	average	Annual	Annual	Annual	Annual	average	Annual	average
1972	1.3	—	—	3.4	(*)	1.7	2.2	1.4	4.6	(*)	9.7	(*)
1973	1.3	0.9	1.2	3.2	(*)	1.7	2.1	1.4	4.3	2.6	9.0	5.3
1975	1.3	1.0	1.2	3.6	(*)	1.7	2.1	1.4	4.7	2.7	8.4	4.8
1977	1.3	1.0	1.2	3.5	2.1	1.8	2.0	1.4	4.7	2.7	8.0	4.7
1979	1.3	1.0	1.2	3.8	2.1	1.7	2.0	1.4	4.7	2.6	7.9	4.8
1981	1.3	1.1	1.2	3.9	2.1	1.7	2.1	1.4	4.4	2.5	8.2	4.7
1983	1.4	1.1	1.3	4.0	2.2	1.9	2.2	1.6	4.3	2.5	9.0	4.7
1985	1.4	1.2	1.4	4.1	2.2	2.0	2.2	1.6	4.8	2.6	9.8	5.2
1987	1.5	1.2	1.4	3.9	2.2	2.1	2.2	1.7	4.8	2.7	8.3	4.8
1989	1.7	1.4	1.7	4.6	2.7	2.3	2.7	1.9	5.3	3.0	10.5	6.3
1990	1.6	1.3	1.6	4.8	2.6	2.1	2.5	1.8	5.1	3.0	10.8	5.6
1991	1.6	1.4	1.6	4.5	2.6	2.3	2.4	1.8	5.3	2.9	9.6	5.5
1992	1.6	1.4	1.6	4.4	2.6	2.2	2.4	1.8	4.9	3.0	8.5	5.1
1993	1.6	1.4	1.6	4.6	2.6	2.1	2.5	1.9	5.3	3.0	8.2	4.8
1994	1.6	1.3	1.6	4.4	2.5	2.1	2.4	1.8	5.3	3.0	9.5	4.9
1995	1.5	1.3	1.5	3.9	2.3	2.2	2.0	1.8	5.0	2.9	7.5	4.8
1996	1.5	1.4	1.6	(*)	(*)	2.1	2.5	1.8	4.8	(*)	8.8	(*)

— Not available

* Not applicable

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S8 Standard errors for the text table in *Indicator 8*

					Postsecondary attendance by 1994			
Race/ethnicity and family income	Expected a bachelor's degree	Planned to attend a 4-year institution	Took steps toward admission	Accepted at a 4-year institution	Any 4-year institution	Public 2-year college	Other less-than-4-year	Did not attend
Total	**0.7**	**0.8**	**0.9**	**0.9**	**1.0**	**0.9**	**0.3**	**0.6**
Race/ethnicity								
White	0.8	0.9	1.0	1.1	1.2	1.1	0.4	0.6
Black	2.4	2.6	2.8	3.0	3.3	2.3	0.8	2.7
Hispanic	2.9	2.7	2.7	3.1	3.0	2.7	0.7	2.1
Asian/Pacific Islander	2.0	2.3	2.4	2.6	2.8	2.6	0.6	1.6
American Indian/Alaskan Native	6.1	11.4	9.9	9.2	9.3	11.9	1.9	8.3
Family income								
Low (less than $25,000)	1.7	1.7	1.8	1.8	1.8	1.5	0.7	1.6
Middle ($25,000–74,999)	0.9	1.1	1.1	1.1	1.3	1.2	0.5	0.7
High ($75,000 or more)	0.8	1.1	1.0	1.1	1.5	1.4	0.4	0.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88), Third Follow-up (1994).

Table S9 Standard errors for the text table in *Indicator 9*

	Ages 18–24				Ages 25–34				Age 35 or older			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1972	0.5	0.5	1.7	3.3	0.3	0.3	1.1	2.0	—	—	—	—
1974	0.5	0.5	1.6	3.2	0.3	0.3	1.1	2.2	—	—	—	—
1976	0.5	0.5	1.7	3.2	0.3	0.3	1.1	2.0	0.1	0.1	0.6	1.2
1978	0.4	0.5	1.6	2.9	0.2	0.3	1.0	1.8	0.1	0.1	0.6	1.2
1980	0.4	0.5	1.5	2.8	0.2	0.3	0.9	1.6	0.1	0.1	0.5	0.9
1982	0.5	0.5	1.5	2.8	0.2	0.3	0.9	1.6	0.1	0.1	0.5	0.9
1984	0.5	0.5	1.5	2.8	0.2	0.2	0.8	1.6	0.1	0.1	0.4	0.6
1986	0.5	0.6	1.5	2.7	0.2	0.2	0.8	1.5	0.1	0.1	0.4	0.8
1988	0.6	0.6	1.7	3.3	0.2	0.3	0.8	1.5	0.1	0.1	0.4	0.9
1990	0.5	0.6	1.7	2.8	0.2	0.3	0.7	1.3	0.1	0.1	0.4	0.8
1991	0.6	0.6	1.7	2.9	0.2	0.3	0.8	1.4	0.1	0.1	0.4	0.7
1992	0.6	0.6	1.7	2.9	0.2	0.3	0.7	1.4	0.1	0.1	0.3	0.7
1993	0.6	0.7	1.7	2.8	0.2	0.3	0.8	1.4	0.1	0.1	0.4	0.7
1994	0.6	0.7	1.7	2.7	0.2	0.3	0.8	1.4	0.1	0.1	0.4	0.8
1995	0.6	0.7	1.7	2.6	0.2	0.3	0.8	1.2	0.1	0.1	0.4	0.7
1996	0.6	0.7	1.8	2.8	0.3	0.3	0.9	1.4	0.1	0.1	0.4	0.7

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S10 Standard errors for the text table in *Indicator 10*

	Type of institution					Primary reason for enrolling in a less-than-4-year institution			
Selected student and institutional characteristics	Public 4-year	Public 2-year	Private, not-for-profit 4-year	Private, for-profit	Other	Obtain job skills	Earn degree or certificate	Transfer to a 4-year institution	Other
				Academic year 1989–90					
Total	**1.6**	**1.8**	**0.8**	**0.8**	**0.5**	**—**	**—**	**—**	**—**
				Academic year 1995–96					
Total	**1.0**	**1.4**	**0.7**	**0.8**	**0.4**	**1.5**	**1.1**	**1.6**	**0.9**
Dependency status and income									
Dependent, less than $30,000	2.0	2.5	1.1	1.2	0.5	2.4	2.5	3.1	2.2
Dependent, $30,000 to $59,999	1.5	2.0	1.1	0.6	0.4	2.1	1.8	2.6	2.1
Dependent, $60,000 or more	1.8	2.2	1.6	0.4	0.2	2.1	2.7	3.7	2.2
Independent, less than $10,000	1.1	3.6	1.2	3.1	1.1	3.5	2.3	3.8	1.9
Independent, $10,000 or more	0.9	2.5	0.6	1.8	1.4	2.5	2.2	1.5	2.2
Age as of 12/31/95									
18–19	1.3	1.6	1.0	0.6	0.3	1.5	1.5	2.0	1.2
20–23	1.9	2.7	1.0	1.7	0.9	3.2	2.7	2.6	2.6
24 or older	0.9	2.6	0.8	2.1	1.3	2.6	1.9	1.7	1.9
Type of institution									
Public 2-year	—	0.0	—	—	—	1.7	1.4	1.9	1.2
Private, for profit	—	—	—	0.0	—	1.9	1.4	0.4	1.2

—Not available or not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study (BPS:90/94), and 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Table S11 Standard errors for the text table in *Indicator 11*

	Attainment at first institution			1994 attainment at any institution									
				Attained						No degree			
					Certificate		Associate				Enrolled		
Selected characteristics	None	Certificate	Associate	Total	Not enrolled at 4-year	Enrolled at 4-year	Not enrolled at 4-year	Enrolled at 4-year	Bachelors	Total	Less-than-4-year	4-year	Not enrolled
Total	**1.7**	**1.0**	**1.6**	**1.9**	**1.3**	**0.3**	**1.5**	**0.7**	**1.0**	**1.5**	**1.3**	**0.9**	**2.0**
Age as of 12/31/89													
18 years or younger	2.5	1.0	2.6	2.6	1.6	0.7	2.3	1.3	2.0	2.1	1.7	1.6	2.7
19 years	4.4	2.5	3.9	4.5	3.4	0.0	3.5	1.6	1.2	3.9	3.4	2.6	4.8
20–29 years	3.4	2.0	2.7	3.8	3.1	0.0	2.1	1.0	1.1	3.1	3.0	1.0	4.3
30 years or older	3.8	2.9	2.2	4.5	3.5	0.0	2.4	0.6	0.6	2.9	2.9	0.0	4.4
Enrollment status, first term													
Full time	2.7	1.3	2.5	2.8	1.8	0.6	2.0	1.2	1.9	1.8	1.4	1.3	2.8
At least half, less than full time	2.6	1.3	2.4	3.6	2.5	0.6	2.9	1.0	1.0	3.5	3.1	2.0	4.0
Less than half time	2.9	2.3	2.2	3.5	3.0	0.0	2.3	0.9	1.3	2.9	2.6	1.8	4.6
First transfer													
Did not transfer	2.4	1.6	2.0	2.5	1.7	(*)	1.9	(*)	(*)	1.6	1.6	(*)	2.5
Transferred to less-than-4-year	2.2	1.5	1.8	4.9	4.2	0.0	3.2	0.0	0.6	3.8	3.8	0.0	4.5
Transferred to 4-year	3.7	0.6	3.6	4.0	0.6	1.4	2.7	3.1	3.8	3.2	1.7	3.0	2.9
Average number of months enrolled at first institution	0.5	2.1	1.2	0.9	1.1	—	1.6	1.6	1.2	1.3	1.9	2.3	0.5

— Not available.

* Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Table S12 Standard errors for the text table in *Indicator 12*

	Completed a degree					No degree, no longer enrolled toward a bachelor's						
	Highest degree completed						Number of months enrolled					
Selected characteristics	Bachelor's	Associate	Certificate	Total any degree	Still enrolled for bachelor's	Total no degree	Less than 9	9–18	19–27	28–36	37–45	More than 45
Total	**1.4**	**0.9**	**0.5**	**1.3**	**1.0**	**1.2**	**0.5**	**0.8**	**0.6**	**0.7**	**0.5**	**0.4**
Level of first institution												
4-year	1.4	0.4	0.3	1.3	0.9	1.1	0.4	0.5	0.5	0.5	0.4	0.3
2-year	2.0	3.4	2.0	3.7	3.1	3.5	1.7	3.1	2.2	2.3	1.8	1.3
Age as of 12/31/89												
18 years or younger	1.5	0.9	0.6	1.5	1.1	1.3	0.4	0.7	0.8	0.7	0.5	0.5
19 years	2.9	1.3	1.1	3.1	2.9	3.1	1.4	2.5	0.9	1.6	1.1	0.9
20–29 years	3.6	3.9	3.4	4.9	4.5	5.8	3.0	3.9	2.3	1.3	4.0	0.6
30 years or older	3.3	4.5	1.8	5.9	7.0	8.6	7.1	9.7	2.6	6.7	0.6	0.0
Enrollment status, first term												
Full time	1.4	0.6	0.4	1.3	1.0	1.2	0.4	0.7	0.6	0.7	0.4	0.4
At least half, less than full time	3.1	4.5	2.5	4.8	4.1	4.9	2.5	4.4	1.8	1.5	3.2	1.5
Less than half time	4.7	3.1	6.6	7.9	7.8	8.9	5.8	3.9	6.7	5.5	0.3	3.7
Received aid in 1989–1990												
No	2.0	1.6	0.9	2.1	1.6	1.8	0.8	1.3	1.1	1.0	0.8	0.6
Yes	1.6	0.6	0.4	1.5	0.9	1.4	0.6	0.8	0.6	0.8	0.6	0.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Table S13 Standard errors for the text table in *Indicator 13*

Educational attainment and labor force status	1991 total	1995					
			Type of adult education activity				
		Total	Basic skills	Credential	Work-related	Personal development
Total	**1.0**	**0.5**	**0.1**	**0.2**	**0.4**	**0.4**
Educational attainment						
Grades 9–12	2.3	1.4	0.5	0.3	0.7	1.0
High school diploma or GED	1.1	0.8	0.1	0.3	0.7	0.6
Vocational/technical school	3.8	2.1	0.3	0.9	1.7	1.9
Some college	1.6	0.9	0.1	0.6	0.7	1.0
Associate degree	5.9	1.9	0.2	0.8	1.5	1.5
Bachelor's degree or higher	2.0	1.0	—	0.4	0.9	0.7
Labor force status						
Employed	1.0	0.5	0.1	0.2	0.5	0.6
Unemployed	3.1	1.9	0.7	0.8	1.2	2.3
Not in labor force	1.0	0.7	0.1	0.2	0.2	0.7

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 and 1995 (Adult Education Component).

Table S14 Standard errors for the text table in *Indicator 14*

Control and type of institution and family income	Average tuition and fees	Average total price	Average grants	Average total aid	Average net price	Average unmet need	Ratio of total aid to total price
Total	**$181**	**$210**	**$80**	**$117**	**$136**	**$92**	**0.6**
Public 4-year	122	151	49	83	128	65	0.7
Low income	143	208	125	194	154	143	1.3
Lower middle	110	153	79	150	161	128	1.3
Upper middle	128	156	49	118	150	106	1.0
High income	181	181	53	116	174	47	0.9
Private, not-for-profit 4-year	338	413	177	226	329	255	1.1
Low income	579	758	334	454	652	671	1.9
Lower middle	371	428	326	394	277	244	1.5
Upper middle	346	406	221	311	365	289	1.5
High income	337	400	134	221	427	318	1.0
Public 2-year	62	183	80	98	219	173	1.7
Low income	93	274	145	165	351	299	3.2
Lower middle	84	285	82	122	311	332	1.8
Upper middle	113	228	40	125	260	145	1.7
High income	112	188	49	88	197	53	1.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Table S15 Standard errors for the text table in *Indicator 15*

Control and type of institution and class level	1992–93				1995–96			
	Current year				Current Year			
	Percent who borrowed	Average amount borrowed	Percent who ever borrowed	Average cumulative amount borrowed	Percent who borrowed	Average amount borrowed	Percent who ever borrowed	Average cumulative amount borrowed
Total	**0.6**	**$37**	**0.7**	**$63**	**0.6**	**$38**	**0.6**	**$84**
Public 4-year	0.7	33	0.7	78	0.8	45	0.8	112
Freshman	1.0	47	1.1	114	1.2	41	1.2	91
Sophomore	0.9	56	1.1	99	1.3	66	1.5	155
Junior	1.0	62	1.1	145	1.4	104	1.5	249
Senior	0.8	44	0.8	134	1.2	74	1.2	196
Private, not-for-profit 4-year	1.4	52	1.3	107	1.5	74	1.4	188
Freshman	2.2	69	2.3	94	2.2	63	1.9	164
Sophomore	1.8	67	1.6	159	2.3	93	2.1	215
Junior	1.6	89	1.6	184	1.8	100	1.8	258
Senior	1.3	83	1.3	214	1.6	110	1.5	304
Public 2-year	0.5	74	0.8	97	0.6	147	1.0	159
First year	0.6	81	0.9	119	0.6	168	0.9	173
Second year	0.7	148	1.2	171	1.1	206	1.8	278

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 National Postsecondary Student Aid Study (NPSAS:93), and 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Table S16(a) Standard errors for the first text table in *Indicator 16*

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	1.0	0.9	1.2	1.1	1.0	1.2	1.0	0.9	1.3
1975	0.7	0.8	0.8	0.8	0.8	1.0	0.8	0.9	1.0
1980	1.0	0.9	1.2	1.1	1.1	1.3	1.1	0.9	1.2
1984	0.7	0.6	0.8	1.0	0.7	0.8	0.9	0.7	0.9
1988	1.1	1.0	1.0	1.4	1.3	1.5	1.3	1.0	1.5
1990	1.2	0.8	1.1	1.7	1.1	1.6	1.2	1.1	1.2
1992	0.9	1.2	1.1	1.3	1.7	1.6	0.9	1.2	1.1
1994	1.2	0.9	1.3	1.3	1.2	2.2	1.4	1.2	1.5
1996	1.0	0.9	1.1	1.5	1.2	1.3	1.2	1.2	1.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table S16(b) Standard errors for the second text table in *Indicator 16*

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	0.9	0.7	1.0	1.7	1.2	1.7	—	—	—
1975	0.7	0.7	0.6	1.2	1.2	2.0	2.2	3.0	3.6
1980	0.8	0.7	0.9	1.8	1.5	1.8	2.3	2.0	2.7
1984	0.9	0.6	0.9	1.4	1.0	1.0	3.1	1.7	2.9
1988	1.4	1.1	1.2	2.4	2.4	2.4	3.5	3.5	4.3
1990	1.3	0.9	1.2	2.9	2.2	2.3	2.3	2.3	3.6
1992	1.0	1.2	1.4	2.2	2.3	2.1	3.1	3.5	3.7
1994	1.3	1.1	1.5	2.3	2.4	3.9	3.9	1.9	4.9
1996	1.2	1.0	1.2	2.7	2.6	2.7	3.5	2.9	4.1

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table S17(a) Standard errors for the first text table in *Indicator 17*

	Total			Male			Female		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	1.5	2.0	1.6	2.8	2.3	1.4	3.1	2.4	2.5
1988	1.6	1.3	1.3	2.3	1.5	2.0	2.0	1.7	1.2
1990	1.5	1.2	1.0	1.9	1.5	1.6	2.2	1.3	1.5
1992	1.5	1.3	1.4	1.7	1.9	1.2	1.7	1.3	2.0
1994	1.6	1.3	1.2	1.7	1.8	1.5	2.2	1.4	1.5
1996	1.2	1.0	1.2	1.8	1.1	1.4	1.9	1.2	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table S17(b) Standard errors for the second text table in *Indicator 17*

	White			Black			Hispanic		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	1.9	2.1	1.8	5.0	5.7	3.6	5.8	6.4	6.6
1988	1.9	1.3	1.3	4.7	3.5	2.9	3.5	2.5	4.4
1990	2.0	1.6	1.2	5.4	2.3	2.3	4.1	2.8	2.6
1992	1.7	1.3	1.2	3.8	4.0	3.2	3.6	2.2	3.8
1994	1.5	1.4	1.4	3.2	3.4	2.2	3.1	3.3	4.0
1996	1.6	1.0	1.5	2.3	2.6	3.0	3.2	2.3	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table S18(a) Standard errors for the first text table in *Indicator 18*

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	0.8	1.1	1.1	0.7	1.3	1.2	1.1	1.1	1.1
1978	0.8	1.1	1.0	0.7	1.3	1.0	1.0	1.1	1.0
1982	1.1	1.1	0.9	1.2	1.4	1.0	1.2	1.1	1.0
1986	1.0	1.2	0.9	1.1	1.1	1.2	1.2	1.5	1.0
1990	0.8	0.9	0.9	0.9	1.2	1.1	1.1	0.9	1.1
1992	0.8	0.9	0.9	1.0	1.1	1.1	1.0	1.0	1.1
1994	0.8	1.0	1.0	1.0	1.3	1.4	0.9	1.0	1.1
1996	0.8	0.8	1.2	1.2	0.9	1.3	0.7	1.0	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table S18(b) Standard errors for the second text table in *Indicator 18*

Year	White			Black			Hispanic		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	1.0	0.9	1.1	1.8	1.9	1.3	2.4	2.2	2.2
1978	0.9	0.8	0.9	1.1	1.9	1.3	2.2	2.0	2.3
1982	1.1	1.0	0.9	1.6	1.6	1.2	1.3	1.7	1.8
1986	1.1	1.3	1.0	1.6	2.3	2.1	2.1	2.9	2.9
1990	0.8	1.1	1.0	2.2	2.3	2.8	2.1	1.8	2.9
1992	0.8	0.9	0.8	2.0	1.9	2.2	2.3	1.8	2.6
1994	1.0	0.9	1.1	1.6	3.5	1.8	2.3	1.9	3.7
1996	1.0	0.9	1.4	1.4	1.3	1.7	1.7	1.6	2.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Table S19(a) Standard errors for the first text table in *Indicator 19*

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1973	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1977	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1982	1.8	1.3	1.2	2.3	1.5	1.4	2.0	1.3	1.3
1986	1.2	1.4	1.4	1.4	1.6	1.9	1.4	1.5	1.5
1990	0.8	0.9	1.1	1.1	1.1	1.3	1.0	1.1	1.6
1992	1.0	0.8	1.3	1.2	1.2	1.7	1.0	1.0	1.5
1994	1.2	1.0	1.6	1.3	1.2	2.0	1.4	1.2	1.7
1996	1.2	1.0	1.2	1.7	1.0	1.6	1.5	1.3	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1998.

Table S19(b) Standard errors for the second text table in *Indicator 19*

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	0.9	0.8	0.8	1.9	2.4	1.5	—	—	—
1973	0.9	0.8	0.8	1.9	2.4	1.5	—	—	—
1977	0.9	0.8	0.7	1.8	2.4	1.5	2.7	1.9	2.2
1982	1.9	1.1	1.0	3.0	1.3	1.7	4.2	3.9	2.3
1986	1.2	1.4	1.7	1.9	2.5	2.9	3.1	3.1	3.8
1990	0.8	0.9	1.1	2.0	3.1	4.5	2.2	2.6	4.4
1992	1.0	1.0	1.3	2.7	2.7	3.2	2.8	2.6	5.6
1994	1.3	1.0	1.5	1.7	4.2	3.1	2.7	2.4	6.7
1996	1.4	1.1	1.2	3.0	2.1	2.4	2.8	2.5	3.3

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1998.

Table S20(a) Standard errors for the first text table in *Indicator 20*

	4th-grade			8th-grade			12th-grade		
G-7 country	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Canada	3.3	3.4	3.9	2.4	3.2	2.7	2.8	3.8	3.5
England	3.2	3.4	4.4	2.6	5.1	3.5	—	—	—
France	—	—	—	2.9	3.1	3.8	5.1	5.6	5.3
Germany	—	—	—	4.5	5.1	5.0	5.9	8.8	8.8
Italy	—	—	—	—	—	—	5.5	7.4	6.0
Japan	2.1	2.5	2.2	1.9	2.6	2.1	—	—	—
United States	3.0	3.1	3.3	4.6	5.2	4.5	3.2	4.1	3.6

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years* (1996), *Science Achievement in the Middle School Years* (1996), *Mathematics Achievement in the Primary School Years* (1997), *Science Achievement in the Primary School Years* (1997). U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

Table S20(b) Standard errors for the second text table in *Indicator 20*

	4th-grade			8th-grade			12th-grade		
G-7 country	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Canada	3.0	3.7	3.2	2.6	3.1	3.7	2.6	3.6	3.8
England	3.3	4.0	3.4	3.3	5.6	4.2	—	—	—
France	—	—	—	2.5	2.7	3.3	5.1	6.7	4.8
Germany	—	—	—	4.8	5.9	4.9	5.1	7.9	8.5
Italy	—	—	—	—	—	—	5.3	6.7	5.6
Japan	1.8	2.0	2.0	1.6	2.4	2.0	—	—	—
United States	3.1	3.3	3.3	4.7	4.9	5.2	3.3	4.6	3.9

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years* (1996), *Science Achievement in the Middle School Years* (1996), *Mathematics Achievement in the Primary School Years* (1997), *Science Achievement in the Primary School Years* (1997). U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

Table S21 Standard errors for the text table in *Indicator 21*

Country	Prose scale				Document scale				Quantitative scale			
	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Belgium	1.5	2.4	2.7	1.3	1.7	3.0	4.2	1.0	1.8	1.8	2.2	1.4
Canada	1.7	2.0	2.6	2.4	1.9	1.6	2.2	1.5	1.8	2.6	2.8	2.2
Germany	1.3	1.3	1.8	1.2	0.8	1.4	1.2	1.0	0.5	1.3	1.2	1.1
Ireland	1.5	1.8	1.7	1.7	1.8	1.4	1.6	1.4	1.6	1.1	1.1	1.7
Netherlands	0.7	1.1	1.4	1.1	0.8	0.9	1.4	1.1	0.8	1.0	1.1	1.0
New Zealand	1.0	1.3	1.0	0.8	1.1	1.5	1.1	1.0	1.1	1.2	1.2	0.8
Poland	0.9	0.9	0.8	0.6	1.4	1.1	0.9	0.5	1.3	1.4	0.9	0.6
Sweden	0.5	0.7	1.1	0.7	0.4	1.0	1.2	0.9	0.6	0.9	1.2	0.9
Switzerland (French)	1.4	1.9	2.1	0.9	1.4	2.0	1.7	1.4	1.0	1.7	2.0	1.4
Switzerland (German)	1.0	2.0	1.9	1.2	1.4	2.2	1.0	1.3	1.1	1.9	2.1	1.4
United Kingdom	1.1	1.3	1.5	1.0	1.1	1.2	1.1	1.0	0.9	1.3	1.3	1.1
United States	1.1	1.4	1.5	1.4	0.9	1.5	1.2	1.3	0.9	1.5	0.9	1.2

SOURCE: Organization for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994 and 1996.

Table S22 Standard errors for the text table in *Indicator 22*

March	High school completers				High school completers with:							
					1 or more years of college				4 or more years of college			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	0.5	0.5	2.2	2.9	0.7	0.7	2.6	3.8	0.6	0.6	1.8	2.5
1973	0.5	0.5	2.0	2.6	0.6	0.7	2.5	3.3	0.5	0.6	1.8	2.2
1975	0.4	0.4	1.8	2.5	0.6	0.7	2.3	3.3	0.5	0.6	1.7	2.5
1977	0.4	0.4	1.7	2.5	0.6	0.6	2.2	3.3	0.5	0.6	1.7	2.1
1979	0.4	0.4	1.6	2.3	0.6	0.6	2.1	3.1	0.5	0.6	1.6	2.1
1981	0.4	0.3	1.5	2.1	0.6	0.6	2.0	2.7	0.5	0.5	1.4	1.8
1983	0.4	0.4	1.4	2.2	0.6	0.6	2.0	2.9	0.5	0.6	1.5	2.2
1985	0.4	0.4	1.4	2.1	0.6	0.6	1.9	2.8	0.5	0.6	1.4	2.1
1987	0.4	0.4	1.3	2.0	0.6	0.6	1.9	2.6	0.5	0.6	1.3	1.8
1989	0.4	0.4	1.4	2.2	0.6	0.7	2.0	2.9	0.5	0.6	1.5	2.2
1991	0.4	0.4	1.4	2.0	0.6	0.7	2.0	2.6	0.5	0.6	1.3	2.0
	Diploma or equivalency certificate				**Some college**				**Bachelor's degree or higher**			
1992	0.4	0.4	1.4	2.0	0.6	0.7	2.0	2.6	0.5	0.6	1.4	1.9
1993	0.4	0.4	1.4	1.9	0.6	0.7	2.0	2.5	0.5	0.6	1.5	1.7
1994	0.4	0.4	1.1	1.2	0.6	0.6	1.7	1.6	0.5	0.6	1.2	1.1
1995	0.4	0.3	1.0	1.3	0.6	0.6	1.6	1.7	0.5	0.6	1.3	1.2
1996	0.4	0.4	1.1	1.3	0.6	0.7	1.7	1.7	0.5	0.7	1.3	1.2
1997	0.4	0.3	1.1	1.2	0.6	0.7	1.7	1.6	0.6	0.7	1.3	1.2

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S24(a) Standard errors for the first text table in *Indicator 24*

Recency of migration	Total	Hispanic			Non-Hispanic			
		Total	Mexican	Other Hispanic	Total	White	Black	Asian/Pacific Islander
Total	**0.3**	**1.6**	**2.1**	**2.8**	**0.3**	**0.3**	**0.8**	**0.9**
Born outside 50 states/D.C.	1.1	2.8	3.3	4.6	0.9	1.3	2.8	1.3
First generation	0.8	2.3	3.1	3.6	0.7	0.8	3.2	1.3
Later generation	0.3	3.0	3.4	6.8	0.3	0.3	0.8	3.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1996.

Table S24(b) Standard errors for the second text table in *Indicator 24*

Year and recency of migration	Total	Hispanic			Non-Hispanic			
		Total	Mexican	Other Hispanic	Total	White	Black	Asian/Pacific Islander
1979 Total	**0.3**	**2.0**	**2.5**	**3.5**	**0.8**	**0.3**	**1.2**	**—**
Born outside 50 states/D.C.	2.4	3.0	5.3	4.8	4.4	2.4	5.3	—
First generation	1.2	4.1	3.8	5.1	5.7	1.2	9.9	—
Later generation	0.3	3.0	4.3	6.0	0.8	0.0	1.3	—
1989 Total	**0.3**	**2.7**	**2.8**	**3.9**	**0.7**	**0.3**	**0.9**	**1.5**
Born outside 50 states/D.C.	2.7	4.1	3.8	4.6	3.2	1.8	3.5	1.9
First generation	1.4	5.4	5.4	14.5	4.1	0.9	5.6	3.3
Later generation	0.3	3.9	4.0	9.0	0.8	0.3	1.0	2.8
1996 Total	**0.3**	**1.6**	**2.1**	**2.9**	**0.2**	**0.3**	**0.7**	**1.0**
Born outside 50 states/D.C.	0.9	2.2	2.7	3.6	0.8	1.2	3.0	1.3
First generation	0.9	2.7	3.9	3.6	0.9	1.0	5.0	1.7
Later generation	0.3	3.2	3.8	6.8	0.3	0.3	0.7	1.3

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, November Current Population Survey, 1979 and 1989; and October Current Population Survey, 1996.

Table S25 Standard errors for the text table in *Indicator 25*

Student characteristics	Participated in community service			Will participate before the end of the school year	Planned to do community service next year
	Total	Regular participation	One or two times		
Total	**0.7**	**0.6**	**0.6**	**0.7**	**0.6**
Grade level					
6–8	1.1	0.9	0.9	1.1	0.9
9–10	1.0	1.0	1.0	1.3	0.9
11–12	1.4	1.3	1.4	1.1	1.3
Parents' highest education level					
Less than high school diploma	2.3	2.0	2.0	2.7	1.9
High school diploma or GED	1.3	1.0	1.1	1.2	1.2
Some college/vocational/technical	1.2	1.0	1.0	1.2	1.1
Bachelor's degree	1.5	1.7	1.5	1.5	1.3
Graduate/professional school	1.9	1.5	1.5	1.6	1.0
Any adult in the household who performs community service					
Yes	1.0	0.9	0.8	0.9	0.7
No	1.1	0.8	0.9	0.9	1.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

Table S26 Standard errors for the text table in *Indicator 26*

School year	English: Average years required	English: Percentage requiring 4 or more years	Mathematics: Average years required	Mathematics: Percentage requiring 3 or more years	Science: Average years required	Science: Percentage requiring 3 or more years	Core subjects: Average years required	Core subjects: Percentage meeting NCEE recommendations
Public school districts								
1987–88	*0.0	0.7	*0.0	0.8	*0.0	0.7	*0.0	0.6
1990–91	*0.0	0.6	*0.0	0.8	*0.0	0.7	*0.0	0.7
1993–94	*0.0	0.8	*0.0	0.7	*0.0	0.6	*0.0	0.6
Private schools								
1987–88	*0.0	1.5	*0.0	2.2	0.1	2.8	0.1	2.8
1990–91	0.1	1.4	*0.0	1.6	*0.0	2.3	0.2	2.1
1993–94	*0.0	0.3	*0.0	2.2	*0.0	2.5	0.1	2.5

* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (Teacher Demand and Shortage Questionnaire and Private School Questionnaire), 1987–88, 1990–91, and 1993–94.

Table S28(a) Standard errors for the first text table in *Indicator 28*

Subject	Fall 1989	1995: Total	1995: Public 2-year	1995: Public 4-year	1995: Private 2-year	1995: Private 4-year	1995: Minority enrollment High	1995: Minority enrollment Low
Reading, writing, or mathematics	1.4	0.8	1.4	1.2	5.4	1.6	2.0	0.8
Reading	0.7	0.5	1.0	0.8	2.5	1.2	1.7	0.6
Writing	0.8	0.6	1.0	0.9	5.3	1.3	1.7	0.6
Mathematics	1.0	0.8	1.3	1.1	4.8	1.4	2.0	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Remedial Education at Higher Education Institutions in Fall 1995.*

Table S28(b) Standard errors for the second text table in *Indicator 28*

Subject	Fall 1989	1995: Total	1995: Public 2-year	1995: Public 4-year	1995: Private 2-year	1995: Private 4-year	1995: Minority enrollment High	1995: Minority enrollment Low
Reading, writing, or mathematics	2.1	1.7	—	2.6	6.8	3.9	2.0	1.9
Reading	2.3	1.6	0.7	3.1	5.5	2.7	3.1	1.7
Writing	2.2	1.6	0.5	2.7	6.8	4.2	3.4	1.8
Mathematics	2.2	1.6	0.5	2.7	7.0	3.5	2.1	1.7

— Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Remedial Education at Higher Education Institutions in Fall 1995.*

Table S30 Standard errors for the text table in *Indicator 30*

October	Recent high school graduates not enrolled in college				Recent school dropouts			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1972	1.7	1.8	5.7	(*)	2.8	3.4	6.4	(*)
1974	1.7	1.8	5.8	5.5	2.7	3.2	5.6	5.2
1976	1.7	1.8	5.8	4.9	2.8	3.2	5.5	5.2
1978	1.6	1.7	5.6	4.5	2.7	3.3	5.1	5.3
1980	1.8	1.8	5.2	4.9	2.8	3.5	5.5	4.8
1982	2.0	2.1	4.7	5.1	3.1	3.8	5.4	5.2
1984	2.1	2.3	5.0	5.1	3.3	4.1	6.9	4.9
1986	2.1	2.3	5.1	5.2	3.4	4.5	8.6	5.1
1988	2.4	2.6	6.1	6.2	3.7	4.7	6.8	6.8
1989	2.5	2.7	7.1	6.8	4.1	5.3	7.4	6.5
1990	2.5	2.8	6.4	6.1	4.1	5.3	8.7	6.2
1991	2.8	3.2	6.2	5.9	4.1	5.5	7.6	5.9
1992	2.7	3.0	6.1	5.9	4.0	5.3	—	6.2
1993	2.7	3.0	7.2	5.6	4.1	5.2	8.6	5.4
1994	2.4	2.7	6.3	4.9	3.5	4.7	7.7	4.6
1995	2.4	2.8	6.2	4.6	3.2	4.4	7.5	4.3
1996	2.5	3.0	6.0	(*)	3.5	4.8	6.4	(*)

— Not available.

* Not applicable.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S31 Standard errors for the text table in *Indicator 31*

March	Male				Female			
	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher
1971	1.2	0.5	1.0	0.8	1.5	0.9	1.7	1.8
1973	1.1	0.5	1.0	0.7	1.5	0.9	1.6	1.6
1975	1.5	0.6	0.9	0.6	1.5	0.9	1.5	1.3
1977	1.5	0.6	0.8	0.6	1.6	0.9	1.3	1.2
1979	1.5	0.6	0.7	0.5	1.7	0.9	1.2	1.1
1981	1.5	0.6	0.7	0.5	1.7	0.8	1.1	1.0
1983	1.8	0.8	0.9	0.6	1.7	0.8	1.1	1.0
1985	1.6	0.6	0.7	0.6	1.8	0.8	1.1	0.9
1987	1.5	0.6	0.8	0.6	1.8	0.8	1.0	0.9
1989	1.6	0.6	0.8	0.6	2.0	0.8	1.1	0.9
1990	1.5	0.6	0.8	0.6	1.9	0.8	1.0	0.9
1991	1.7	0.6	0.8	0.6	1.8	0.8	1.1	0.9
1992	1.7	0.7	0.8	0.7	1.8	0.9	1.0	0.9
1993	1.7	0.7	0.8	0.6	1.9	0.9	0.9	0.9
1994	1.6	0.7	0.7	0.6	1.9	0.9	0.9	0.9
1995	1.7	0.7	0.7	0.6	2.0	0.9	0.9	0.9
1996	1.7	0.7	0.8	0.6	2.1	1.0	0.9	0.9
1997	1.7	0.8	0.7	0.6	2.1	1.0	1.0	0.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S32 Standard errors for the text table in *Indicator* 32

	Grades 9–11		Some college		Bachelor's degree or higher	
Year	Male	Female	Male	Female	Male	Female
1970	0.02	0.05	0.02	0.06	0.02	0.06
1972	0.02	0.03	0.02	0.05	0.02	0.05
1974	0.02	0.05	0.02	0.05	0.02	0.06
1976	0.02	0.04	0.02	0.05	0.02	0.05
1978	0.03	0.02	0.03	0.04	0.03	0.05
1980	0.02	0.04	0.02	0.04	0.02	0.04
1982	0.02	0.04	0.02	0.03	0.02	0.05
1984	0.03	0.04	0.04	0.03	0.05	0.04
1986	0.02	0.04	0.02	0.04	0.03	0.04
1988	0.03	0.03	0.02	0.04	0.04	0.03
1990	0.03	0.04	0.03	0.03	0.03	0.04
1991	0.03	0.05	0.03	0.03	0.02	0.04
1992	0.03	0.04	0.03	0.04	0.03	0.05
1993	0.03	0.03	0.02	0.04	0.03	0.05
1994	0.03	0.04	0.03	0.03	0.03	0.05
1995	0.02	0.03	0.03	0.04	0.03	0.06
1996	0.02	0.04	0.02	0.04	0.04	0.05

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S33(a) Standard errors for the first text table in *Indicator* 33

	Year of graduation					
Major field of study	1977	1980	1984	1986	1990	1993
Humanities	3.5	2.0	2.5	1.5	2.4	2.2
Social and behavioral sciences	1.9	1.8	2.3	1.9	1.6	1.6
Natural sciences	3.2	4.2	3.2	2.3	3.2	2.3
Computer sciences and engineering	2.9	2.9	2.0	1.6	1.8	2.9
Education	1.3	1.2	1.8	1.2	1.7	1.7
Business and management	1.7	1.9	1.4	0.8	1.6	2.3
Other professional or technical	2.8	2.2	1.7	1.2	2.1	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate surveys (1977–90) and 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

Table S33(b) Standard errors for the second text table in *Indicator* 33

		Male		Female	
Major field of study	All graduates	Percentage in field	Median starting salary	Percentage in field	Median starting salary
Total	**$249**	—	**$390**	—	**$233**
Humanities	500	0.8	703	0.8	522
Social and behavioral sciences	350	0.8	697	0.8	444
Natural sciences	517	0.6	940	0.6	720
Computer sciences and engineering	636	1.2	662	0.4	1,640
Education	362	0.6	725	1.8	398
Business and management	539	1.6	671	1.2	582
Other professional or technical	581	1.2	1,009	1.1	764

— Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

Table S34 Standard errors for the text table in *Indicator 34*

	Years of school completed											
	All 25- to 34-year-olds						White		Black		Hispanic	
Year	All levels	Less than 9 years	9–11 years	12 years	13–15 years	16 years or more	9–11 years	12 years	9–11 years	12 years	9–11 years	12 years
1972	0.2	0.9	0.6	0.2	0.3	0.1	0.6	0.2	2.2	1.4	2.9	1.4
1973	0.2	0.9	0.6	0.2	0.3	0.1	0.6	0.2	2.4	1.3	3.9	1.7
1974	0.2	1.0	0.7	0.2	0.2	0.1	0.7	0.2	2.4	1.2	3.5	1.5
1975	0.1	1.1	0.7	0.2	0.3	0.2	0.7	0.2	2.6	1.1	3.1	1.4
1976	0.2	1.0	0.7	0.2	0.2	0.1	0.7	0.2	2.4	1.2	3.4	1.6
1977	0.2	1.0	0.7	0.2	0.2	0.1	0.7	0.2	2.5	1.3	3.2	1.8
1978	0.1	1.0	0.8	0.2	0.2	0.1	0.8	0.2	2.4	1.2	3.5	1.8
1979	0.1	1.0	0.8	0.2	0.3	0.1	0.8	0.2	2.4	1.2	3.2	1.5
1980	0.2	1.1	0.8	0.2	0.2	0.1	0.8	0.2	2.4	1.2	3.3	1.4
1981	0.2	1.1	0.8	0.2	0.3	0.1	0.9	0.2	2.7	1.3	3.1	1.3
1982	0.1	1.1	0.8	0.2	0.3	0.1	0.9	0.2	2.5	1.2	3.1	1.4
1983	0.2	1.0	0.8	0.2	0.2	0.1	0.9	0.2	2.5	1.1	2.7	1.2
1984	0.2	1.1	0.9	0.2	0.3	0.1	0.9	0.2	2.6	1.1	2.1	1.1
1985	0.1	1.2	0.9	0.2	0.2	0.1	0.9	0.2	2.7	1.0	2.2	1.0
1986	0.1	1.1	0.8	0.2	0.2	0.1	0.9	0.2	2.4	1.0	2.0	1.1
1987	0.2	1.1	0.8	0.2	0.2	0.1	0.8	0.2	2.7	1.1	2.3	1.2
1988	0.1	1.3	0.8	0.2	0.3	0.1	0.9	0.2	2.6	1.0	2.2	1.0
1989	0.1	1.1	0.8	0.2	0.2	0.1	0.8	0.2	2.7	1.0	2.0	0.9
1990	0.2	1.0	0.8	0.2	0.2	0.1	0.9	0.2	2.6	1.1	1.9	1.0
1991	0.2	1.0	0.8	0.2	0.2	0.1	1.0	0.3	2.5	1.1	2.1	1.1
1992	0.2	1.2	0.9	0.3	0.3	0.1	1.1	0.3	3.2	1.3	2.4	1.3
1993	0.2	1.1	0.9	0.3	0.3	0.1	1.1	0.3	3.1	1.4	2.1	1.3
1994	0.2	1.1	0.9	0.3	0.3	0.1	1.1	0.3	3.2	1.3	1.8	1.1
1995	0.2	1.1	0.8	0.3	0.3	0.1	0.9	0.3	2.9	1.2	1.2	0.8
1996	0.1	1.0	0.8	0.3	0.3	0.1	1.0	0.3	2.8	1.1	1.2	0.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S35 Standard errors for the text table in *Indicator 35*

				Performed activity in the previous 12 months		
Selected characteristics	Member of organization (community group, church, etc.)	Participated in ongoing community service activity	Voted in a national or state election in the past 5 years	Contributed money to a candidate, political party, or political cause	Worked for pay/volunteered for a candidate, political party, or political cause	Attended public meeting
Total	**1.3**	**1.2**	**0.9**	**0.8**	**0.5**	**1.1**
Highest education level						
Less than high school diploma	4.4	2.7	3.8	2.0	1.1	2.9
High school diploma or GED	1.6	1.7	1.4	1.0	0.6	1.5
Some college/vocational/technical	4.8	5.2	3.0	4.1	1.6	5.0
Bachelor's degree	2.5	3.1	1.6	2.4	1.9	2.8
Graduate/professional school	2.6	4.4	2.5	3.4	2.2	3.8
Race/ethnicity						
White	1.5	1.5	1.2	0.9	0.6	1.3
Black	3.5	3.8	3.6	2.8	2.1	3.4
Hispanic	3.8	3.7	3.4	2.6	1.1	3.7
Parent with child age 18 or younger						
Yes	1.9	2.3	1.8	1.3	0.9	1.8
No	1.7	1.7	1.1	1.1	0.6	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Adult Civic Involvement component).

Table S36 Standard errors for the text table in *Indicator 36*

	Public			Private		
		Years of teaching experience			Years of teaching experience	
Type of homework assigned	Total	3 years or less	4 years or more	Total	3 years or less	4 years or more
Complete routine exercises or problems from worksheets, workbooks, or text	1.9	2.6	2.1	1.7	2.8	2.0
Read the textbook or other assigned reading	2.0	3.6	2.2	2.3	4.0	2.8
Read supplementary material	1.9	3.4	2.1	2.2	3.7	2.6
Complete a short writing assignment	2.0	3.3	2.3	2.5	4.2	3.0
Apply concepts or principles to different or unfamiliar situations	1.6	3.4	1.7	2.6	3.5	2.9
Write a journal entry	2.2	3.1	2.5	2.4	3.8	3.0
Work on a project, gather data, or conduct an experiment	2.0	3.5	2.2	2.1	3.3	2.5
Prepare a written report	2.0	2.5	2.4	1.7	2.3	2.0
Work on problems for which there is no obvious method of solution	1.4	3.3	1.7	1.5	1.8	1.8
Prepare an oral report	1.3	2.0	1.5	1.7	2.5	1.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

Table S37(a) Standard errors for the first text table in *Indicator 37*

Hours per day	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
None assigned	1.5	2.2	2.1	1.7	2.1	2.0	1.6	1.3	1.1	1.4	1.5	1.9	1.5	1.5	0.9	1.1	1.1	1.2
Didn't do it	0.5	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.6	0.5	0.5	0.6	0.9
Less than 1 hour	1.5	1.7	1.9	1.5	1.6	1.8	1.6	1.1	0.8	1.2	1.2	1.1	1.4	0.9	0.9	0.8	0.9	0.8
1–2 hours	1.0	0.9	0.7	0.7	1.0	0.9	1.1	1.1	0.9	1.1	1.1	1.2	1.4	1.3	0.8	0.7	0.9	1.0
More than 2 hours	0.7	0.6	0.5	0.5	0.6	0.4	0.6	0.8	0.6	0.8	0.7	0.9	1.0	0.9	0.7	0.9	1.0	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends Almanac: Writing, 1984 to 1996*, 1998.

Table 37(b) Standard errors for the second text table in *Indicator 37*

Hours per day	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
None	0.4	0.4	0.4	0.2	0.4	0.5	0.5	0.3	0.4	0.3	0.4	0.7	0.6	0.5	0.4	0.5	0.8	0.6
1 hour or less	1.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8	0.7	1.0	0.7	0.9	1.2	1.1	1.0	0.9	1.1	1.1
2–3 hours	1.0	0.8	0.8	0.7	0.7	1.0	1.0	0.6	0.8	0.7	0.9	0.9	0.9	1.2	0.6	0.7	0.7	0.9
4 hours or more	1.3	1.3	0.9	0.7	0.8	0.8	1.0	0.6	0.6	0.5	0.7	0.6	0.8	0.5	0.5	0.5	0.5	0.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends Almanac: Writing, 1984 to 1996*, 1998.

Table S38 Standard errors for the second text table in *Indicator 38*

	Number of hours per week in class			
Country	Less than 2 hours	2 hours to less than 3.5 hours	3.5 hours to less than 5 hours	5 hours or more
France	1.4	3.2	3.3	1.3
Germany	1.5	3.1	2.9	0.9
Ireland	0.7	3.7	3.4	1.1
Spain	1.1	4.0	4.7	2.6
Sweden	1.2	1.3	0.4	0.3
United States	1.4	3.4	4.4	2.8

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

Table S39 Standard errors for the text table in *Indicator 39*

School and classroom decisions	All schools	Public Total	Public Elementary	Public Secondary	Private Total	Private Elementary	Private Secondary
Percentage of teachers who perceived that teachers had a good deal of influence in their school over:							
Setting discipline policy	0.4	0.4	0.7	0.3	0.7	0.9	1.0
Determining the content of in-service programs	0.4	0.4	0.6	0.4	0.6	0.8	0.9
Establishing curriculum	0.3	0.4	0.6	0.4	0.6	0.8	1.0
Percentage of teachers who perceived having a good deal of control in their classroom over:							
Selecting textbooks and other instructional materials	0.4	0.4	0.6	0.4	0.6	0.7	0.9
Selecting content, topics, and skills to be taught	0.3	0.4	0.7	0.4	0.5	0.8	0.7
Selecting teaching techniques	0.2	0.3	0.4	0.3	0.4	0.5	0.4
Evaluating and grading students	0.2	0.3	0.4	0.2	0.3	0.4	0.4
Disciplining students	0.3	0.4	0.6	0.5	0.4	0.5	0.7
Determining the amount of homework to be assigned	0.3	0.3	0.5	0.3	0.5	0.6	0.7
Percentage of principals who perceived that teachers had a good deal of influence over:							
Setting discipline policy	0.5	0.6	0.7	1.0	1.2	1.5	2.5
Determining the content of in-service programs	0.5	0.8	0.9	0.7	1.3	1.6	3.0
Establishing curriculum	0.6	0.8	1.1	0.8	1.2	1.6	2.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher, Private School Teacher, Public School Principal, and Private School Principal questionnaires).

Table S40 Standard errors for the text table in *Indicator 40*

Control of school and selected teacher characteristics	Average hours worked per week	Average hours required at school	Average hours spent before and after school and on weekends: Total	Average hours spent before and after school and on weekends: Activities involving students	Average hours spent before and after school and on weekends: Other related activities	Average class size	Average number of classes taught per day
Public	**0.1**	**0.1**	**0.1**	***0.0**	***0.0**	**0.1**	***0.0**
Teacher level							
Elementary	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Secondary	0.1	0.1	0.1	0.1	*0.0	0.1	*0.0
Years of teaching experience							
3 years or less	0.3	0.3	0.2	0.1	0.2	0.3	0.1
4 years or more	0.1	0.1	0.1	*0.0	*0.0	0.1	*0.0
Private	**0.2**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	***0.0**
Teacher level							
Elementary	0.2	0.1	0.2	0.1	0.1	0.2	0.2
Secondary	0.3	0.2	0.1	0.1	0.1	0.2	*0.0
Years of teaching experience							
3 years or less	0.3	0.2	0.3	0.2	0.2	0.3	0.1
4 years or more	0.2	0.1	0.1	0.1	0.1	0.2	0.1

* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher and Private School Teacher questionnaires).

Table S41 Standard errors for the text table in *Indicator 41*

Instructional method	Total	Academic discipline: Agriculture/ home economics	Business	Education	Engineering	Fine arts	Health sciences	Humanities	Natural sciences	Social sciences	Other
Teaching tools											
Computational tools/software	0.6	4.2	1.7	1.9	2.3	1.5	1.8	0.9	1.2	1.3	1.5
Computer aided instruction	0.5	4.3	1.5	1.8	2.5	1.6	1.8	1.1	1.2	1.1	1.4
Grading											
Grading on a curve	0.5	4.8	1.8	1.3	3.0	1.6	1.9	0.9	1.2	1.4	1.5
Competency-based grading	0.5	3.7	1.6	1.8	2.5	1.7	1.8	1.1	1.1	1.6	1.7
Assignments											
Multiple drafts of written work	0.5	3.7	1.4	1.8	1.7	1.5	1.6	1.0	0.9	1.3	1.6
Student presentations	0.6	4.6	1.6	1.6	2.9	1.5	1.8	0.9	1.1	1.5	1.4
Student evaluations	0.6	3.9	1.5	1.9	2.2	1.9	1.7	1.0	0.9	1.4	1.5
Term/research papers	0.6	3.6	1.6	1.8	2.6	2.0	1.8	1.1	1.0	1.4	1.6
Midterms/finals											
Multiple choice	0.6	3.9	1.5	1.8	2.8	1.9	1.5	1.1	1.2	1.7	1.6
Short answer	0.5	3.4	1.8	1.7	2.9	2.0	1.8	1.1	1.2	1.5	1.6
Essay	0.6	4.9	1.7	1.8	2.7	2.1	1.6	0.9	1.2	1.4	1.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Table S43 Standard errors for the text table in *Indicator 43*

	Black					Hispanic				
	Public schools					Public schools				
Year	Total	Central cities	Other metropolitan	Nonmetropolitan	Private schools	Total	Central cities	Other metropolitan	Nonmetropolitan	Private schools
1970	0.3	0.7	0.3	0.5	0.4	—	—	—	—	—
1972	0.3	0.6	0.3	0.4	0.5	0.2	0.4	0.2	0.3	0.4
1974	0.3	0.7	0.3	0.5	0.5	0.2	0.4	0.2	0.3	0.5
1976	0.3	0.7	0.3	0.5	0.5	0.2	0.4	0.3	0.3	0.5
1978	0.3	0.7	0.3	0.5	0.5	0.2	0.5	0.3	0.2	0.5
1979	0.3	0.7	0.3	0.5	0.6	0.2	0.5	0.2	0.3	0.5
1982	0.3	0.8	0.4	0.5	0.6	0.2	0.6	0.3	0.3	0.6
1985	0.3	0.8	0.4	0.5	0.6	0.3	0.7	0.4	0.3	0.6
1986	0.3	0.7	0.3	0.5	0.6	0.3	0.6	0.3	0.4	0.6
1988	0.3	0.8	0.4	0.5	0.8	0.3	0.7	0.4	0.5	0.8
1990	0.3	0.8	0.4	0.5	0.7	0.3	0.6	0.4	0.4	0.7
1991	0.3	0.7	0.4	0.5	0.7	0.3	0.6	0.4	0.4	0.7
1992	0.3	0.7	0.4	0.5	0.7	0.3	0.6	0.4	0.4	0.7
1993	0.3	0.7	0.4	0.5	0.8	0.3	0.7	0.4	0.5	0.7
1994	0.3	0.7	0.3	0.5	0.8	0.3	0.7	0.4	0.5	0.8
1995	0.3	0.7	0.4	0.5	0.7	0.3	0.7	0.4	0.5	0.7

— Not available

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years, and October Current Population Surveys.

Table S44 Standard errors for the text table in *Indicator 44*

Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level	0.6	0.6	0.6	0.6	0.6	0.5
Less than high school diploma	0.6	0.6	0.6	0.7	0.7	0.7
High school diploma or GED	0.4	0.4	0.5	0.5	0.6	0.6
Some college	0.3	0.3	0.4	0.4	0.5	0.5
Bachelor's degree or higher						
Percentage of young adults whose mothers were employed	0.6	0.6	0.7	0.7	0.7	0.7
Percentage of young adults whose fathers were employed	0.4	0.4	0.5	0.5	0.6	0.5
Family type						
Two-parent household	0.6	0.6	0.7	0.8	0.9	0.9
Father as head of household	0.2	0.3	0.3	0.3	0.4	0.4
Mother as head of household	0.6	0.6	0.7	0.8	0.9	0.8
Number of other children in household						
0–1	0.8	0.8	0.9	0.9	1.0	0.9
2–3	0.8	0.8	0.9	0.8	0.9	0.9
4 or more	0.7	0.6	0.5	0.4	0.5	0.4

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S46 Standard errors for the text table in *Indicator 46*

Type of drug	1975	1978	1981	1984	1987	1990	1993	1994	1995	1996	1997
Alcohol	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3
Marijuana	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4
Any illicit drug other than marijuana	0.5	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Stimulants	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
LSD	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cocaine	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Sedatives	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Tranquilizers	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Inhalants	—	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

— Not available.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table S47 Standard errors for the text table in *Indicator 47*

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
1976	1.1	1.1	0.5	0.8	0.9	0.9
1977	1.1	1.1	0.5	0.7	0.7	0.9
1978	1.0	0.9	0.5	0.7	0.7	0.9
1979	1.0	0.9	0.5	0.7	0.7	0.9
1980	1.0	0.9	0.5	0.7	0.7	0.9
1981	1.0	1.0	0.5	0.8	0.8	0.9
1982	1.0	1.0	0.5	0.7	0.7	0.9
1983	1.0	1.0	0.5	0.8	0.8	0.9
1984	1.0	0.9	0.5	0.7	0.7	0.9
1985	1.0	1.0	0.5	0.8	0.8	0.9
1986	1.2	1.1	0.5	0.9	0.9	0.9
1987	1.1	1.0	0.5	0.7	0.8	0.9
1988	1.1	1.0	0.5	0.8	0.8	0.9
1989	1.1	1.0	0.5	0.8	0.8	0.9
1990	1.3	1.2	0.5	0.9	0.9	1.1
1991	1.3	1.2	0.6	0.9	0.9	1.1
1992	1.3	1.3	0.6	1.0	1.0	1.1
1993	1.3	1.2	0.6	0.9	0.8	1.0
1994	1.3	1.2	0.6	1.0	0.9	1.2
1995	1.3	1.2	0.6	0.9	0.9	1.2
1996	1.4	1.2	0.6	0.9	0.9	1.2

NOTE: The methodology for computing standard errors for 1994–96 differs from that of previous years.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table S48 Standard errors for the text table in *Indicator 48*

Teacher level and percentage low income students	Problems associated with parent: Lack of involvement	Problems associated with parent: Alcoholism and/or drug abuse	Problems associated with student: Apathy	Problems associated with student: Alcohol use	Problems associated with student: Poor nutrition	Problems associated with student: Drug abuse	Problems associated with student: Poor health	Problems associated with student: Pregnancy
Total	**0.4**	**0.3**	**0.4**	**0.2**	**0.3**	**0.1**	**0.2**	**0.2**
Teacher level								
Elementary	0.6	0.6	0.4	0.1	0.5	0.1	0.3	0.2
Secondary	0.6	0.3	0.4	0.3	0.2	0.3	0.2	0.2
Percentage of students who received free or reduced-price lunch								
0–5	0.9	0.4	0.8	0.8	0.3	0.6	0.2	0.2
6–20	0.8	0.3	0.8	0.5	0.2	0.3	0.1	0.2
21–40	0.8	0.4	0.8	0.4	0.4	0.4	0.3	0.2
More than 40	0.8	0.7	0.7	0.2	0.6	0.2	0.5	0.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School and Public School Teacher questionnaires).

Table S49 Standard errors for the text table in *Indicator 49*

Selected characteristics	Participated in school activities: Attended general meeting	Attended scheduled meeting with teacher	Attended school event	Acted as a volunteer or served on a committee	Helped with homework: Never or less than once a week	1–2 times a week	3 or more times a week
Total	**0.4**	**0.3**	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**
Race/ethnicity							
White	0.4	0.4	0.6	0.5	0.5	0.6	0.5
Black	0.8	0.8	1.2	1.1	1.0	1.1	1.2
Hispanic	1.0	0.9	1.2	1.2	1.2	1.2	1.4
Parents' highest education level							
Less than high school diploma	1.3	1.1	2.0	1.4	1.6	1.6	2.0
High school diploma or GED	0.8	0.6	0.8	0.7	0.8	0.9	0.8
Some college/vocational/technical	0.5	0.6	0.8	0.7	0.8	0.8	0.9
Bachelor's degree	0.5	0.8	1.0	1.2	1.3	1.2	1.1
Graduate/professional school	0.6	0.9	0.9	1.0	1.0	1.0	1.2
Family structure							
Two biological or adoptive parents	0.4	0.3	0.5	0.5	0.5	0.6	0.6
One biological or adoptive parent	0.7	0.7	0.9	0.8	1.0	1.0	1.0
One biological/adoptive and one step parent	1.1	1.0	1.4	1.3	1.3	1.3	1.4
Other relatives	2.0	2.0	2.5	2.5	2.3	2.9	2.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education component).

Table S52 Standard errors for the text table in *Indicator 52*

Average hours worked while enrolled	Course-taking effects: Limited class schedule	Reduced class choices	Limited number of classes	Effect on grades: Positive effect	No effect	Negative effect
Total	**1.1**	**1.0**	**1.1**	**0.9**	**1.2**	**1.1**
1–15	2.0	1.3	1.7	2.0	2.0	1.0
16–20	1.9	1.8	1.5	1.3	2.1	1.9
21–34	2.0	1.9	1.7	1.7	2.4	2.3
35 or more	2.2	2.1	2.5	1.6	3.0	3.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96).

Table S57 Standard errors for the second text table in *Indicator 57*

Urbanicity and percentage of minority students enrolled	School earnings: Total school earnings	School earnings: Base salary	School earnings: Summer supplemental earnings	School earnings: Other school compensation	Non-school compensation
Total	**$99**	**$101**	**$48**	**$30**	**$157**
Central city	185	187	105	65	263
Less than 20 percent	360	353	96	82	454
20 percent or more	212	215	148	92	321
Urban fringe/large town	259	250	71	72	388
Less than 20 percent	421	414	101	93	263
20 percent or more	354	348	101	109	822
Rural/small town	169	163	44	40	176
Less than 20 percent	231	226	55	47	234
20 percent or more	292	291	76	76	270

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public School Teacher Questionnaire).

Table S58 Standard errors for the text table in *Indicator 58*

Control of school and class subject	Did not major in class subject	Did not major or minor in class subject	No graduate degree in class subject	Not certified in class subject
Public				
English	0.8	0.6	0.7	0.5
Social sciences	0.7	0.5	0.9	0.7
Mathematics	0.9	1.0	0.7	0.8
Science	1.0	0.6	1.1	0.7
Foreign languages	1.3	0.9	1.6	0.9
Visual and performing arts	0.9	0.9	1.3	1.0
Health and physical education	0.8	0.7	1.3	0.9
Vocational education	0.9	0.9	0.9	0.6
Private				
English	2.3	2.2	2.7	2.9
Social sciences	2.1	2.0	3.0	3.0
Mathematics	2.6	2.5	1.8	2.6
Science	1.6	1.1	2.9	2.3
Foreign languages	3.5	3.5	3.0	4.3
Visual and performing arts	2.3	2.3	4.1	4.6
Health and physical education	3.2	2.7	3.8	3.8
Vocational education	6.6	6.5	4.1	7.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Public and Private School Teacher questionnaires).

Table S59 Standard errors for the text table in *Indicator 59*

Teaching status and destination of leavers	Public: Between 1987–88 and 1988–89	Public: Between 1990–91 and 1991–92	Public: Between 1993–94 and 1994–95	Private: Between 1987–88 and 1988–89	Private: Between 1990–91 and 1991–92	Private: Between 1993–94 and 1994–95
Teaching status						
Teaching at same school	0.5	0.5	0.5	1.4	1.1	0.8
Moved to another school	0.5	0.3	0.4	0.8	0.6	0.5
Left teaching	0.4	0.4	0.3	0.9	0.8	0.7
Destination of leavers						
Working in education	2.5	2.2	2.0	2.2	2.1	2.4
Working outside education	1.9	2.2	2.5	3.2	4.1	2.9
Attending college	0.7	1.7	0.6	1.3	3.2	1.8
Homemaking/child rearing	3.6	3.6	2.9	4.1	2.6	2.7
Retired	2.9	2.7	2.4	1.6	2.0	1.5
Disabled	0.2	0.3	0.9	—	0.3	0.4
Other	1.7	2.4	2.9	3.2	3.0	3.1

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94, and the Teacher Follow-up Survey, 1988–89, 1991–92, and 1994–95.

Table S60 Standard errors for the text table in *Indicator 60*

Sex and academic rank	Total	Control of institution: Public	Control of institution: Private	Type of institution: Research	Type of institution: Doctoral	Type of institution: Comprehensive	Type of institution: Liberal arts	Type of institution: 2-year	Type of institution: Other
				Part time					
Total	**0.9**	**1.1**	**1.9**	**2.5**	**2.4**	**2.0**	**2.8**	**1.3**	**3.4**
Sex									
Male	1.1	1.3	2.0	2.1	2.4	2.2	3.5	1.6	3.9
Female	0.9	1.1	1.9	3.7	3.0	1.9	2.3	1.3	3.4
Academic rank									
Full professor	1.2	1.1	2.5	2.1	3.0	2.5	3.1	2.7	4.6
Associate professor	1.7	2.0	2.9	3.9	2.3	1.2	1.7	3.1	8.7
Assistant professor	1.5	1.3	3.1	3.3	2.6	1.8	3.6	3.9	6.7
Instructor	1.0	1.2	2.0	5.4	3.4	1.9	3.3	1.4	5.2
Lecturer	2.3	2.7	4.2	5.9	6.3	2.3	6.4	1.8	8.7
				Full time					
Total	**0.9**	**1.1**	**1.9**	**2.5**	**2.4**	**2.0**	**2.8**	**1.3**	**3.4**
Sex									
Male	1.1	1.3	2.0	2.1	2.4	2.2	3.5	1.6	3.9
Female	0.9	1.1	1.9	3.7	3.0	1.9	2.3	1.3	3.4
Academic rank									
Full professor	1.2	1.1	2.5	2.1	3.0	2.5	3.1	2.7	4.6
Associate professor	1.7	2.0	2.9	3.9	2.3	1.2	1.7	3.1	8.7
Assistant professor	1.5	1.3	3.1	3.3	2.6	1.8	3.6	3.9	6.7
Instructor	1.0	1.2	2.0	5.4	3.4	1.9	3.3	1.4	5.2
Lecturer	2.3	2.7	4.2	5.9	6.3	2.3	6.4	1.8	8.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Sources of Data

BEST COPY AVAILABLE

1. Federal Agency Sources

National Center for Education Statistics U.S. Department of Education

Baccalaureate and Beyond Longitudinal Study

The Baccalaureate and Beyond Longitudinal Study (B&B) is based on the National Postsecondary Student Aid Study (NPSAS) and provides information concerning education and work experience after completing the bachelor's degree. B&B provides cross-sectional information 1 year after bachelor's degree completion (comparable to the Recent College Graduate Study), while at the same time providing longitudinal data concerning entry into and progress through graduate level education and the work force. It also provides information on entry into, persistence and progress through, and completion of graduate level education—information not available through followups involving high school cohorts or even college entry cohorts, both of which are restricted in the number who actually complete a bachelor's degree and continue their education.

About 11,000 students who completed their degree in the 1992–93 academic year were included in the first B&B (B&B:93/94). In addition to the student data, B&B collected postsecondary transcripts covering the undergraduate period, providing complete information on progress and persistence at both the undergraduate and graduate levels. New B&B cohorts will alternate with BPS in using NPSAS as their base.

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Beginning Postsecondary Students Longitudinal Study

The Beginning Postsecondary Students Longitudinal Study (BPS) provides information on persistence, progress, and attainment of students from their initial time of entry into postsecondary education through their leaving school and entering the work force. BPS includes traditional and nontraditional (e.g., older) students and is representative of all beginning students in postsecondary education. BPS followed first-time, beginning students for 5 years (through spring 1994), collecting student data and financial aid reports. By starting with a cohort that has already entered postsecondary education (from the NPSAS:90), and following it for 5 years (with the first followup in spring 1992 and the second followup in spring 1994), BPS is able to determine to what extent, if any, students who start postsecondary education later differ in their progress, persistence, and attainment. A new cohort of beginning postsecondary students from 1995–96 will be followed in 1998.

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Common Core of Data

The Common Core of Data (CCD) survey provides the National Center for Education Statistics (NCES) with a way to acquire and maintain statistical data on the 50 states, the District of Columbia, and five outlying areas from the universe of state-level education agencies. Information about staff and students is collected annually at the school, local education agency or school district (LEA), and state levels. Information about revenues and expenditures also is collected at the state level, and NCES joins the Bureau of Census in collecting school district finance data. Data are collected for a particular school year (October 1 through September 30) via survey instruments sent to the states by October 15 of the subsequent school year. States have 1 year in which to modify the data originally submitted.

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Fast Response Survey System

The Fast Response Survey System (FRSS) was established in 1975 to collect issue-oriented data quickly and with minimum response burden. FRSS was designed to meet the data needs of Department of Education analysts, planners, and decision-makers when information could not be collected quickly through traditional NCES surveys.

The data collected through FRSS are representative at the national level, drawing from a universe that is appropriate for each study. FRSS collects data from state education agencies and national samples of other educational sectors, including:

- Local education agencies;
- Public and private elementary and secondary schools;
- Public and private postsecondary institutions;
- Public school teachers;
- Public and school libraries; and
- Adult literacy programs.

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High School and Beyond

High School and Beyond (HS&B) is a national longitudinal study of 1980 high school sophomores and seniors. The base-year survey was a probability sample of 1,015 high schools, with a target number of 36 sophomores and 36 seniors in each schools. A total of 58,270 students participated in the base-year survey. Substitutions were made for noncooperating schools—but not for students—in those strata where it was possible. Overall, 1,122 schools were selected in the original sample and 811 of these schools participated in the survey. An additional 204 schools were drawn in a replacement sample. Student refusals and student absences resulted in an 82 percent completion rate for the survey.

HS&B first followup activities were conducted in the spring of 1982. The sample design of the first followup survey called for the selection of approximately 30,000 individuals who were sophomores in 1980. The completion rate for sophomores eligible for on-campus survey administration was about 96 percent. About 89 percent of the students who left school between the base-year and first followup surveys (dropouts, transfer students, and early graduates) completed the first followup sophomore questionnaire.

The sample for the second followup, which took place in the spring of 1984, consisted of about 12,000 members of the senior cohort and about 15,000 members of the sophomore cohort. The completion rates were 91 and 92 percent, respectively.

HS&B third followup data collection activities were conducted in the spring of 1986. Both the sophomore and senior cohort samples for this round of data collection were the same as those used for the second followup survey. The completion rates for the sophomore and senior cohort samples were 91 percent and 88 percent, respectively.

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High School Transcript Studies

As part of the first followup of High School and Beyond (HS&B), transcripts were requested in fall 1982 for an 18,152-member subsample of the sophomore cohort. Of the 15,941 transcripts actually obtained, 1,969 were excluded because the students had dropped out of school before graduation; 799 were excluded because they were incomplete; and 1,057 were excluded because the students graduated before 1982 or the transcript indicated neither a dropout status nor graduation. Thus, 12,116 transcripts were used for an overall curriculum analysis.

Transcripts of 1987 high school graduates were compared to transcripts of 1982 graduates to describe changes in course-taking patterns across this 5-year period. The sample of schools for the 1987 High School Transcript Study consisted of a nationally representative sample of 497 secondary schools selected for the 1986 National Assessment of Educational Progress (NAEP) for students in grade 11 who were 17 years old, of which 433 schools participated. The 1987 study was restricted to students who were in grade 11 during school year 1985–86 equaling 27,732 graduates. The 1990 High School

Transcript Study was conducted using methodology and techniques nearly identical to those used in the 1987 study.

The analyses in the *Condition* focus on high school graduates, so only those students who had graduated from high school were included from the 1990 study, the 1987 High School Transcript Study, and from HS&B. Because the methods used to identify and define disabled students were different for the later studies, and in order to make the samples as comparable as possible, it was necessary to restrict the samples to those students whose records indicated they had not participated in a special education program. In the spring of 1991, transcripts were collected from 21,607 students who graduated from high school in 1990. These students attended 330 schools that had previously been sampled for the NAEP.

Between May and November of 1994, high school transcripts were collected from 25,573 students who graduated from high school in 1994. To be consistent with the 1982 study, students with an Individualized Education Program (IEP) were omitted. Also, students with incomplete transcripts were dropped, bringing the number of transcripts analyzed to 24,374. These students attended 340 schools that had previously been sampled by NAEP.

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Integrated Postsecondary Education Data System

The Integrated Postsecondary Education Data System (IPEDS) surveys all postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. This survey system, which began in 1986, replaces and expands upon the Higher Education General Information Survey (HEGIS).

IPEDS consists of several integrated components that obtain information on where postsecondary education is available (institutions), who participates in it and completes it (students), which programs are offered and are completed, and which human and financial resources are involved in the provision of institutionally based postsecondary education. Specifically, these components include: fall enrollment in occupationally specific programs; salaries of full-time instructional faculty; completions (degrees awarded); finance; staff; institutional characteristics, including institutional activity; fall enrollment, including age and residence; and academic libraries.

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Fall Enrollment. This survey has been part of the IPEDS or HEGIS series since 1966. The enrollment survey response rate is relatively high; for example, the 1992 response rate was 86.9 percent.

Beginning in fall 1986, the survey system was redesigned with the introduction of IPEDS (see above). The new survey system comprises all postsecondary institutions, but also maintains comparability with earlier surveys by allowing HEGIS institutions to be tabulated separately. The new system also provides for preliminary and revised data releases. This allows NCES the flexibility to release early data sets while still maintaining a more accurate final database.

Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty. This survey has been conducted for most years between 1966–67 and 1987–88, and annually since 1989–90. Although the survey form was changed a number of times during those years, only comparable data are presented in this report. The data were collected from the individual colleges and universities.

Between 1966–67 and 1985–86 this survey differed from other HEGIS surveys in that imputations were not made for nonrespondents. Thus, there is some possibility that the salary averages presented in this report may differ from the results of a complete enumeration of all colleges and universities. Beginning with the surveys for 1987–88, the IPEDS data tabulation procedures included imputations for survey nonrespondents. The response rate for the 1993–94 survey was 90.1 percent.

Completions. This survey was always part of the HEGIS series. However, the degree classification taxonomy was revised in 1970 and again in 1980, with additional revisions in 1985 and 1990. Collection of degree data has been maintained through the IPEDS system.

Though information from survey years 1970–71 through 1981-82 is directly comparable, care must be taken if information before or after that period is included in any comparison. For example, degrees-conferred trend tables arranged by the 1982–83 classification were added to the *Digest of Education Statistics, 1992* to provide consistent data from 1970–71 to 1988–89. However, data on associate's degrees and other formal awards below the baccalaureate, by field of study after 1982–83, are not comparable with figures for earlier years. The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. The return rate over the years was high, with a response rate for the 1992–93 survey of 88.2 percent. Because of the high return rate, nonsampling error caused by imputation was also minimal.

Financial Statistics. This survey was part of the HEGIS series and has been continued under the IPEDS system. Changes were made in the financial survey instruments in fiscal years (FY) 1976, 1982, and 1987. The FY 76 survey instrument contained numerous revisions to earlier survey forms and made direct comparisons of line items very difficult. Beginning in FY 82, Pell grant data were collected on federal restricted grants and contracts revenues and restricted scholarships and fellowships expenditures. The introduction of IPEDS in the FY 87 survey included several important changes to the survey instrument and data processing procedures. While these changes were significant, considerable effort has been made to present only comparable information on trends in this report and to note inconsistencies. Finance tables for this publication have been adjusted by subtracting the largely duplicative Pell grant amounts from the later data to maintain comparability with pre-FY 82 data.

To reduce reporting error, NCES uses national standards for reporting financial statistics. These standards are contained in *College and University Business Administration: Administrative Services* (1974 edition), published by the National Association of College and University Business Officers; *Audits of Colleges and Universities* (as amended August 31, 1974), by the American Institute of Certified Public Accountants; and *HEGIS Financial Reporting Guide* (1980), by NCES. Wherever possible, definitions and formats in the survey form are consistent with those in these three accounting texts.

Fall Staff. The fall staff data presented in this publication were collected in cooperation with the U.S. Equal Employment Opportunity Commission (EEOC). In 1989, survey instruments were mailed to 6,669 in-scope postsecondary education institutions, including 2,576 4-year schools, 2,739 2-year schools, and 273 public less-than-2-year schools. The universe of 5,002 less-than-2-year private institutions were represented by a sample of 1,071 institutions.

The 3,589 institutions of higher education (in the 50 states and the District of Columbia) in operation in 1989 form a subset of the universe of postsecondary institutions in this report. These institutions are accredited at the college level by an agency recognized by the Secretary, U.S. Department of Education; these institutions were previously surveyed under HEGIS, which IPEDS supersedes. The 1991 "Fall Staff" survey had an overall response rate of 84.9 percent.

Institutional Characteristics. This survey provided the basis for the universe of institutions presented in the *Directory of Postsecondary Institutions.* The IPEDS contains approximately 10,000 schools whose primary purpose is to provide postsecondary education. The Institutional Characteristics survey requests information about institutions that allows the universe to be classified by control, program level, and other characteristics. Each fall, institutions are asked to update their information.

National Adult Literacy Survey

The National Adult Literacy Survey (NALS) was created as a new measure of literacy and funded by the U.S. Department of Education and by 12 states. It is the third, and largest, assessment of adult literacy funded by the federal government. The aim of the survey is to profile the English literacy of adults in the United States based on their performance across a wide array of tasks that reflect the types of materials and demands they encounter in their daily lives.

To gather the information on adults' literacy skills, trained staff interviewed nearly 13,600 individuals age 16 and older during the first 8 months of 1992. These participants had been randomly selected to represent the adult population in the country as a whole. In addition, some 1,100 inmates from 80 federal and state prisons were interviewed to gather information on the proficiencies of the prison population. In total, over 26,000 adults were surveyed.

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National Assessment of Educational Progress

The National Assessment of Educational Progress (NAEP) is a congressionally mandated study funded by the Office of Educational Research and Improvement (OERI), U.S. Department of Education. The overall goal of the project is to determine the nation's progress in education. To accomplish this goal, a cross-sectional study was designed and initially implemented in 1969. Periodically, NAEP has gathered information about levels of educational achievement across the country. NAEP has surveyed the educational accomplishments of 9-, 13-, and 17-year-old students (and in recent years, students in grades 4, 8, and 12), and occasionally young adults, in 10 learning areas. Different learning areas were assessed annually and, as of 1980–81, biennially. Most areas have been periodically reassessed in order to measure possible changes in education achievement.

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National Education Longitudinal Study of 1988

The National Education Longitudinal Study of 1988 (NELS:88) is the third major longitudinal study sponsored by NCES. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS–72) and HS&B, surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, NELS:88 began with a cohort of 8th-grade students.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It complements and strengthens state and local efforts by furnishing new information on how school policies, teacher practices, and family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). The base-year NELS:88 was a multifaceted study questionnaire with four cognitive tests, and questionnaires for students, teachers, parents, and the school.

Within the school sample, 26,000 eighth-grade students were selected at random. The first and second followups revisited the same sample of students in 1990, 1992 and 1994, when the 1988 eighth-graders were in the 10th and 12th grades and then 2 years after their scheduled high school graduation. A fourth followup is planned for the year 2000.

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National Household Education Survey

The National Household Education Survey (NHES) is the first attempt by NCES to go beyond its traditional, school-based data collection to a household survey. Historically, NCES has collected data from teachers, students, and schools through school-based surveys and from administrative records data through surveys of school districts and state education agencies. NHES has the potential to address many education issues that have not been addressed previously by NCES data collections.

During the spring of 1991, NCES fielded a full-scale NHES on early education. Approximately 60,000 households were screened to identify a sample of children aged 3–8. The parents of these children were interviewed in order to collect information about their children's educational activities and the role of the family in children's learning. The NHES:93 is a subsequent survey conducted in the spring of 1993. It addressed readiness for school and safety and discipline in school. The NHES:93 early childhood component focused on readiness for school in a broad sense and examined several relevant issues. The School Safety and Discipline component of the NHES:93 addressed a new topic for the NHES. It focused on four areas: school environment, school safety, school discipline policy, alcohol/other drug use, and education. In the NHES:95 survey, the Early Childhood Program Participation component provides information on infants', toddlers', and preschoolers' participation in a variety of early care and education settings, including both home-based and center-based arrangements. The survey component also includes data on kindergarten and primary school history and experiences.

In the NHES:96, the topical components included Parent/Family Involvement in Education and Civic Involvement. The NHES:96 also expanded screening features to include a series of questions on public library use.

In NHES, an adult education component was fielded in 1991 and 1995. Adult household members were sampled and questioned about their participation in adult education. These adult education components were, for the most part, adapted from the previous Current Population Survey (CPS) adult education supplements. However, unlike the CPS, NHES collects information on both adult education participants and nonparticipants. The NHES:91 survey identified and screened more than 60,000 households. During the survey, a knowledgeable adult was asked a series of questions to screen all household members for adult education participation in a sample of about 20,000 of these 60,000 households, resulting in interviews with approximately 12,000 adults. In the NHES:95 survey, about 19,750 adults completed the interview.

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National Longitudinal Study of the High School Class of 1972

The National Longitudinal Study of the High School Class of 1972 (NLS) was the first major longitudinal study sponsored by NCES. NLS was designed to produce representative data at the national level on the cohort of students who were in the 12th grade in 1972. The 1972 base study was followed by follow-up studies in 1973, 1974, 1976, 1979, and 1986. The followup studies asked respondents about their education and work plans, community characteristics, family structure, attitudes and opinions, school characteristics, grade point average, credits earned, and financial assistance for postsecondary education. After NLS, NCES sponsored two other major longitudinal studies: High School and Beyond, and the National Education Longitudinal Study of 1988.

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National Postsecondary Student Aid Study

NCES conducted the National Postsecondary Student Aid Study (NPSAS) for the first time during the 1986–87 school year. This survey established the first comprehensive student financial aid database. Data were gathered from 1,074 postsecondary institutions and approximately 60,000 students and 14,000 parents. These data provided information on the cost of postsecondary education, the distribution of financial aid, the characteristics of both aided and nonaided students and their families, and the nature of aid packages.

In response to the continuing need for these data, NCES conducted the second, third, and fourth cycles of NPSAS in the 1989–90, 1992–93, and 1995–96 school years.

The 1990 in-school sample involved approximately 70,000 students selected from registrar lists of enrollees at 1,200 postsecondary institutions. The 1993 sample was taken from 77,000 students at 1,000 postsecondary institutions, and the 1996 sample involved 50,000 students enrolled at 950 postsecondary institutions. The sample included both aided and nonaided students. Student information such as field of study, education level, and attendance status (part time or full time) was obtained from registrar records. Types and amounts of financial aid and family financial characteristics were abstracted from school financial aid records. Also, approximately 16,000 parents of students were sampled in 1990; 12,500 parents were sampled in 1993; and 8,800 parents were selected for participation in 1996. Data on family composition and parent financial characteristics also were compiled. Students enrolled in postsecondary education for the first time in 1989–90 served as the base for BPS. Students who received a bachelor's degree in 1992–93 served as the base for B&B, and students who began their postsecondary education in 1995–96 served as the base for BPS:96.

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National Study of Postsecondary Faculty

The National Study of Postsecondary Faculty (NSOPF-88) was a comprehensive survey of higher education instructional faculty in the fall of 1987. It was the first such survey conducted since 1963, and it gathered information regarding the backgrounds, responsibilities, workloads, salaries, benefits, and attitudes of both full- and part-time instructional faculty and staff in 2- and 4-year institutions under both public and private control. In addition, information was gathered from institutional and department-level respondents on such issues as faculty composition, new hires, departures and recruitment, retention, and tenure policies.

There were three major components of the study: a survey of institutional-level respondents at a stratified random sample of 480 U.S. colleges and universities; a survey of a stratified random sample of 3,029 eligible department chairpersons (or their equivalent) within the participating 4-year institutions; and a survey of a stratified random sample of 11,013 eligible faculty members within the participating institutions. Response rates for the three surveys were 88 percent, 80 percent, and 76 percent, respectively.

The universe of institutions from which the sample was selected was all accredited nonproprietary U.S. postsecondary institutions that grant a 2-year (associate's) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education. This includes religious, medical, and other specialized postsecondary institutions as well as 2- and 4-year nonspecialized institutions. According to the 1987 IPEDS, this universe comprised 3,159 institutions. The universe does not include proprietary 2- and 4-year institutions or less-than-2-year postsecondary institutions.

The second cycle of NSOPF, conducted in 1992–93, was limited to surveys of faculty and institutions, but with a substantially expanded sample of 974 public and private nonproprietary higher education institutions and 31,354 faculty. Unlike NSOPF-88, which was limited to faculty whose regular assignment included instruction, the faculty universe for NSOPF-93 was expanded to include anyone who was designated as faculty, whether or not their responsibilities included instruction. Under this definition, researchers and administrators and other institutional staff who hold faculty positions but who do not teach were included in the sample. The definition of the institution universe for NSOPF-93 was identical to the one used in NSOPF-88.

The NSOPF-93 data for the employment status of institutional faculty and staff reflect a substantial increase from the NSOPF-88 data in the percentage of instructional faculty and staff who were employed part time, and conversely, a decrease in the percentage of instructional faculty and staff who were employed full time. Although the increase in the proportion of part-time faculty supports other findings that point to this practice as a way for colleges and universities to reduce costs, the reader is cautioned not to put too much emphasis on the exact change in percentage of part-time instructional faculty and staff between fall 1987 and fall 1992. NSOPF-93 data were collected and weighted differently than NSOPF-88 data, a factor that could produce different results.

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Postsecondary Education Quick Information System

NCES established the Postsecondary Education Quick Information System (PEQIS) to collect timely data on focused issues needed for program planning and policy development with a minimum burden on respondents. In addition to obtaining information on emerging issues quickly, PEQIS surveys are also used to assess the feasibility of developing large-scale data collection efforts on a given topic or to supplement other NCES postsecondary surveys.

The PEQIS panel is a nationally representative sample of approximately 1,500 2-year and 4-year postsecondary institutions in the United States. The panel consists of all types of postsecondary institutions at the 2-year and 4-year level, including universities, baccalaureate colleges, community colleges, trade and technical schools, and other postsecondary schools. PEQIS also includes a supplementary panel of less-than-2-year institutions. Depending on the topic of the survey, questionnaires either are sent to all institutions in the PEQIS panel, or to a subsample of the institutions, for example, institutions designated as higher education institutions.

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Projections of Education Statistics

Since 1964, NCES has published *Projections of Education Statistics*, a report that shows projections of key statistics for elementary and secondary schools and institutions of higher education. Data are included for enrollments, instructional staff, graduates, and earned degrees. *Projections* includes several alternative projection series and a methodology section describing the techniques and assumptions used to prepare them. Data in this edition of *The Condition of Education* reflect the intermediate projection series only.

For additional information about projection methodology and accuracy, contact:

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Data Development and Longitudinal Studies Group
National Center for Education Statistics
555 New Jersey Avenue, NW
Washington, DC 20208-5654
Telephone: (202) 219-1581
e-mail: Debra_Gerald@ed.gov

Recent College Graduates Study

NCES has conducted periodic surveys of individuals, about 1 year after graduation, to collect information on college outcomes. The Recent College Graduates (RCG) surveys have concentrated on those graduates entering the teaching profession. To obtain accurate results on this smaller subgroup, graduates who are newly qualified to teach have been oversampled in each of the surveys.

The 1976 survey of 1974–75 college graduates was the first and smallest in the series. The sample consisted of 209 schools, of which 200 (96 percent) responded. Of the 5,506 graduates in the sample, 4,350 responded, for a response rate of 79 percent.

The 1981 survey was larger, with 301 institutions and 15,852 graduates. Responses were obtained from 286 institutions, for an institutional response rate of 95 percent, and from 9,312 graduates (716 others were determined to be out of scope), for a response rate of 62 percent. The 1985 survey requested data from 18,738 graduates from 404 colleges. Responses were obtained from 13,200 students, for a response rate of 74 percent (885 were out of scope). The response rate for the colleges was 98 percent.

The 1987 survey form was sent to 21,957 graduates. Responses were received from 16,878, for a response rate of 79.7 percent. The *1987 Transcript Study* collected transcripts for each student who was part of the 1987 sample. The 1991 survey sampled 18,135 graduates and 400 institutions. The response rates were 95 percent for the institutions and 83 percent for the graduates.

For additional information about RCG, contact:

Peter S. Stowe
Surveys and Cooperative Systems Group
National Center for Education Statistics
555 New Jersey Avenue, NW
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Schools and Staffing Survey

The Schools and Staffing Survey (SASS) provides national- and state-level data on public and private schools, principals, schools districts, and teachers (no state data for private school principals and teachers). The survey monitors teacher supply and demand conditions, school policies and programs, characteristics and qualifications of teachers and principals, and the general status of teaching and schooling. A proportion of the survey is devoted to school libraries and media centers as well as school librarians.

SASS is a multilevel linked set of surveys that allows comparison between public and private schools and linkages of teachers and principals to their schools and school districts. There are four components: the Teacher Demand and Shortage Survey, the Principal Survey, the School Survey, and the Teacher Survey. In the year following each SASS, a followup survey of teachers is conducted to measure teacher attrition and mobility.

SASS was first conducted in the 1987–88 school year, and again in 1990–91 and 1993–94. It will be conducted again in 1999–2000. The 1993–94 SASS sample consisted of approximately 9,900 public schools, 3,300 private schools, and 5,500 public school districts associated with the public schools in the sample. From these schools, about 57,700 public school teachers and 11,500 private school teachers were sampled.

The public school sample for the 1993–94 SASS was based upon the 1991–92 school year Common Core of Data (CCD), the compilation of all the nation's public school districts and public schools. The private school sample for the 1993–94 SASS was selected from the 1991–92 Private School Universe Survey (PSS), supplemented with list updates from states and some associations available in time for sample selections.

Public-use and restricted-use microdata files are available on CD-ROM or 9-track tape. Summary data from the 1993–94 SASS can be found in *Schools and Staffing in the United States: Selected Data for Public and Private Schools, 1993–94* (NCES 95-191). More detailed results from the 1993–94 SASS are published in *Schools and Staffing in the United States: A Statistical Profile, 1993–94* (NCES 96-124). Data by state (public sector only) are available in *SASS by State—1993–94 Schools and Staffing Survey Selected State Results* (NCES 96-312). Further information about the sample may be obtained from *1993–94 Schools and Staffing Survey: Sample Design and Estimation* (NCES 96-089). Data from previous SASS collections are published in the 1987–88 and 1990–91 *Profile* (NCES 92-120 and 93-146, respectively), as well as the 1987–88 and 1990–91 versions of the sample design report (NCES 91-127 and 93-449, respectively).

For additional information about SASS, contact:

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Surveys and Cooperative Systems Group
National Center for Education Statistics
555 New Jersey Avenue, NW
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Office of Special Education and Rehabilitative Services
U.S. Department of Education

Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA), formerly the Education of the Handicapped Act (EHA), requires the Secretary of Education to annually transmit to Congress a report that describes our school systems' progress in serving the Nation's disabled children. The annual report contains information on such children served by the public schools under the provisions of Part B of the IDEA and on children served in state-operated programs (SOP) for the disabled under Chapter I of the Education Consolidation and Improvement Act (ECIA). Statistics on children who receive special education and related services in various settings and on school personnel who provide such services are reported in an annual submission of data to the Office of Special Education and Rehabilitative Services (OSERS) by the 50 states, the District of Columbia, and the outlying areas. The child-count information is based on the number of disabled children who receive special education and related services on December 1 of each year for IDEA and October 1 for Chapter I of ECIA/SOP.

For more information about the *Annual Report to Congress* contact:

Lou Danielson
Office of Special Education and
Rehabilitative Services
Office of Special Education Programs
Room 3523, Switzer Building
330 C Street, SW
Washington, DC 20202

Bureau of the Census U.S. Department of Commerce

Current Population Survey

Current estimates of school enrollment and social and economic characteristics of students are based on data collected in the Bureau of the Census' monthly household survey of about 60,000 households, known as the Current Population Survey (CPS). The CPS covers 729 sample areas consisting of 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. Up to 1993, the sample was selected from 1980 census files and is periodically updated to reflect new housing construction. In 1994, the questionnaire for the CPS was redesigned, and the computer-assisted personal interviewing (CAPI) method was implemented. In addition, the 1990 census-based population controls with adjustments for the estimated population undercount were also introduced.

The primary function of the monthly CPS is to collect data on labor force participation of the civilian noninstitutional population. (It excludes military personnel and inmates of institutions.) In October of each year, questions on school enrollment by grade and other school characteristics are asked about each member of the household.

For additional information refer to the *Current Population Reports*, Series P-20, or contact:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

School Enrollment. Each October, the CPS includes supplemental questions on the enrollment status of the population aged 3 and older. Annual reports documenting school enrollment of this population have been produced by the Bureau of the Census since 1946.

For additional information about the CPS school enrollment data, contact:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Educational Attainment. Data on years of school completed are derived from two questions on the CPS instrument. Biennial reports documenting educational attainment are produced by the Bureau of the Census using March CPS data.

Beginning with the data for March 1994, tabulations are controlled to the 1990 census. Estimates for earlier years were controlled to earlier censuses.

For additional information about educational attainment data, contact:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Voting and Registration. In November of election years, the CPS includes supplemental questions on voting and registration within the civilian noninstitutional population. CPS voting estimates exceed counts of the actual number of votes cast. On balance, the CPS overstates voting in Presidential elections by 10–20 percent of the total number of persons reported as having voted.

Data on voter participation by social and economic characteristics of the population of voting age have been published since 1964 in *Current Population Reports*, Series P-20.

For additional information about voting and registration, contact:

Jerry T. Jennings
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

2. Other Organization Sources

American College Testing Program

The American College Testing (ACT) Assessment is designed to measure educational development in the areas of English, mathematics, social studies, and natural sciences. The ACT Assessment is taken by college-bound high school students, and the test results are used to predict how well students might perform in college.

Prior to the 1984–85 school year, national norms were based on a 10 percent sample of the students taking the test. Since then, national norms have been based on the test scores of all students taking the test. Moreover, beginning with 1984–85, these norms have been based on the most recent ACT scores available from students scheduled to graduate in the spring of the year in which they take the test. Duplicate test records are no longer used to produce national figures.

The 1990 ACT assessment is significantly different from previous years. Consequently, it is not possible to make direct comparisons between scores earned in 1990 and scores earned in previous years. To permit continuity in the tracking of score trends, ACT has established links between scores earned on ACT tests administered before October 1989 and scores on the new ACT.

For additional information about the ACT Assessment, contact:

The American College Testing Program
2201 North Dodge Street
P.O. Box 168
Iowa City, IA 52243

American Federation of Teachers

The American Federation of Teachers (AFT) reports national and state average salaries and earnings of teachers, other school employees, government workers, and professional employees over the past 25 years. The AFT's survey of state departments of education obtains information on minimum salaries, experienced teachers reentering the classroom, and teacher age and experience. Most data from the survey are reported as received, although some data are confirmed by telephone. These data are available in the AFT's annual report *Survey and Analysis of Salary Trends*. While serving as the primary vehicle for reporting the results of the AFT's annual survey of state departments of education, several other data sources are also used in this report.

For additional information about this survey, contact:

American Federation of Teachers
555 New Jersey Avenue, NW
Washington, DC 20001

College Entrance Examination Board

The Admissions Testing Program of the College Board comprises a number of college admissions tests, including the Preliminary Scholastic Assessment Test (PSAT), the Scholastic Assessment Test (SAT), and Advanced Placement (AP) examinations. High school students participate in the testing program as sophomores, juniors, or seniors—some more than once during these 3 years. If they have taken the tests more than once, only the most recent scores are tabulated. The PSAT and SAT report subscores in the areas of mathematics and verbal ability.

The SAT results are not representative of high school students or college-bound students nationally since the sample is self-selected. Generally, tests are taken by students who need the results to attend a particular college or university. The state totals are greatly affected by the requirements of its state colleges. Public colleges in a number of states require ACT scores rather than SAT scores. Thus, the proportion of students taking the SAT in these states is very low and is inappropriate for any comparison. In recent years, about 1 million high school students have taken the examination annually.

For additional information about the SAT, contact:

College Entrance Examination Board
Educational Testing Service
Princeton, NJ 08541

Institute for Social Research

University of Michigan, Survey Research Center
Monitoring the Future

Monitoring the Future is designed to explore changes in the values, behaviors, attitudes, and lifestyles of the Nation's youth. Measurements are taken on such topics as: attitudes, exposure, availability, and use of drugs; deviant behavior and victimization; education; and social problems. This survey has been conducted for the past 23 years under a series of investigator-initiated research grants awarded by the National Institute of Drug Abuse, which is part of the National Institutes of Health in the U.S. Department of Health and Human Services. Samples are selected to be nationally representative of all 8th-, 10th-, and 12th-graders enrolled in public and private schools in the coterminous United States.

For more information, please contact:

Institute for Social Research
University of Michigan
426 Thompson
Ann Arbor, MI 48104-2321
Telephone: (313) 764-8363
e-mail: ISR@mail.isr.umich.edu

National Education Association

Estimates of School Statistics

The National Education Association (NEA) reports revenues and expenditure data in its annual publication, *Estimates of School Statistics*. Each year the NEA prepares regression-based estimates of financial and other education statistics and submits them to the states for verification. Generally, about 30 states adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously submitted data as final figures become available. The most recent publication contains all changes reported to the NEA. Some tables in *The Condition of Education* use revised estimates of financial data prepared by the NEA because it is the most current source. Since expenditure data reported to NCES must be certified for use in the U.S. Department of Education formula grant programs (such as Chapter I of the ECIA), NCES data are not available as soon as NEA estimates.

For additional information about this data, contact:

National Education Association—Research
1201 16th Street, NW
Washington, DC 20036

The International Association for the Evaluation of Educational Achievement

IEA Reading Literacy Study

In the period 1989–92, the International Association for the Evaluation of Educational Achievement (IEA) conducted a Reading Literacy Study in 32 systems of education. The study focused on two levels in each of these systems: 1) the grade level where most 9-year-olds were to be found; and 2) the grade level where most 14-year-olds were to be found.

To obtain comparable samples of students, multistage sampling was used in each country and schools or classes were typically drawn with a probability proportional to the size of the school or class.

Additional information is available in the IEA report, *How in the World Do Students Read?* by Warwick B. Elley.

The Third International Mathematics and Science Study

The Third International Mathematics and Science Study (TIMSS) is the largest, most comprehensive, and most rigorous international comparison of education ever undertaken. During the 1995 school year, the study tested the mathematics and science knowledge of half a million students from 41 nations at five different grade levels. At the same time, the students, their teachers, and the principals of their schools were asked to respond to questionnaires about their backgrounds and their attitudes, experiences, and practices in the teaching and learning of mathematics and science.

TIMSS is a collaborative research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). The TIMSS International Study Center is housed in the Center for the Study of Testing, Evaluation, and Educational Policy (CSTEEP) at Boston College. The TIMSS International Study Director, Albert E. Beaton, directs the international activities of the study, together with his staff at the International Study Center.

To contact the TIMSS International Study Center:

Dr. Albert Beaton
TIMSS International Study Director
CSTEEP, Campion Hall 323
Boston College
Chesnut Hill, MA 02167
Telephone: (617) 552-4521
e-mail: timss@hermes.bc.edu

Organization for Economic Co-operation and Development

The Organization for Economic Co-operation and Development (OECD) publishes analyses of national policies in education, training, and economics in 23 countries. The countries surveyed include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States, and Yugoslavia.

Since only developed nations, mostly European, are included in OECD studies, the range of analysis is limited. However, OECD data allow for some detailed international comparisons of financial resources or other education variables to be made for this selected group of countries.

For additional information on OECD data, contact:

OECD/CERI/INES
2, rue Andre-Pascal
75775 PARIS CEDEX 16, France
Internet address:
http://www.oecd.org/els/

Glossary

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Academic support: (See Expenditures.)

Adult education: College, vocational, or occupational programs, continuing education or noncredit courses, correspondence courses and tutoring, as well as courses and other educational activities provided by employers, community groups, and other providers.

Advanced degree: Any formal degree attained after the bachelor's degree. Advanced degrees include master's degrees, doctoral degrees, and professional degrees.

Appropriations (federal funds): Budget authority provided through the congressional appropriation process that permits federal agencies to incur obligations and to make payments.

Appropriations (institutional revenues): An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Associate's degree: A degree granted for the successful completion of a subbaccalaureate program of studies, usually requiring at least 2 years (or equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Auxiliary enterprises: (See Revenues.)

Average daily attendance (ADA): The aggregate attendance of students in a school during a reporting period (normally a school year) divided by the number of days that school is in session during this period. Only days on which the students are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days that school is in session during this period. Only days on which the students are under the guidance and direction of teachers should be considered days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Baccalaureate degree: (See Bachelor's degree.)

Bachelor's degree: A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Bilingual education: Programs in which students with limited English proficiency are taught using their native language.

Carnegie unit: A standard of measurement used for secondary education that represents the completion of a course that meets one period per day for 1 year.

Catholic school: (See Orientation.)

Center-based programs: Include Head Start, nursery school, and prekindergarten.

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth.

Certificate: An award granted for the successful completion of a subbaccalaureate program of studies, usually requiring less than 2 years of full-time postsecondary study.

College: A postsecondary school that offers general or liberal arts education, usually leading to an associate's, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included under this terminology.

Combined elementary and secondary school: A school that encompasses instruction at both the elementary and secondary levels. Examples of combined elementary and secondary school grade spans would be grades 1–12 or grades 5–12.

Computer and information sciences: A group of instructional programs that describes computer and information sciences, including computer programming, data processing, and information systems.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer price index (CPI): This price index measures the average change in the cost of a fixed-market basket of goods and services purchased by consumers.

Control of institutions: A classification of institutions of elementary/secondary or higher education by whether the institution is operated by publicly elected or appointed officials (public control) or by privately elected or appointed officials and derives its major source of funds from private sources (private control).

Core subjects: *A Nation at Risk* recommended that all students seeking a high school diploma be required to enroll in a core curriculum called "New Basics." The core subjects included in this plan are 4 units of English; 3 units each of science, social studies, and mathematics; and 0.5 units of computer science.

Cost of college attendance: Cost of living for students attending postsecondary institutions, including tuition and fees, books, room and board, child care, transportation, and other miscellaneous expenses.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): Expenditures for the day-to-day operations of the schools. Expenditures for items lasting more than one year (such as school buses and computers) are not included in current expenditures.

Current expenditures per pupil in enrollment: (See Expenditures.)

Current-fund expenditures: (See Expenditures.)

Current-fund revenues: (See Revenues.)

Dependent student: A student who under federal criteria is considered to be financially dependent on his or her parents or guardians. Most full-time students are considered dependent until they are 24 years old.

Doctor's degree: An earned degree carrying the title of Doctor. The Doctor of Philosophy degree (Ph.D.) is the highest academic degree and requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctorates are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.), musical arts (D.M.A.), business administration (D.B.A.), and engineering (D.Eng. or D.E.S.). Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading. (See First-professional degree.)

Dropout: The term is used both to describe the event of leaving school before graduating and the status of an individual who is not in school and who is not a graduate. Transferring schools, for example, from a public to a private school, is not regarded as a dropout event. A person who drops out of school may later return and graduate. At the time the person left school initially, he or she is called a *dropout*. At the time the person returns to school, he or she is called a *stopout*. Measures to describe these often complicated behaviors include the event dropout rate (or the closely related school persistence rate), the status dropout rate, and the high school completion rate.

Educational and general expenditures: (See Expenditures.)

Educational attainment: The highest grade of regular school attended and completed.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade eight. Preschool or kindergarten is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary/secondary school: As reported in this publication, includes only regular schools (i.e., schools that are part of state and local school systems, and also most not-for-profit private elementary/secondary schools, both religiously affiliated and nonsectarian). Schools not reported include subcollegiate departments of institutions of higher education, residential schools for exceptional children, federal schools for American Indians, and federal schools on military posts and other federal installations.

Employed: Includes civilian, noninstitutionalized persons who 1) worked during any part of the survey week as paid employees; worked in their own businesses, professions, or farms; or worked 15 hours or more as unpaid workers in a family-owned enterprise; or 2) who were not working but had jobs or businesses from which they were temporarily absent due to illness, bad weather, vacation, labor-management dispute, or personal reasons, whether or not they were seeking another job.

Engineering and engineering technologies: Instructional programs that describe the mathematical and natural science knowledge gained by study, experience, and practice and applied with judgment to develop ways to economically use the materials and forces of nature for the benefit of humanity. Includes programs that prepare individuals to support and assist engineers and similar professionals.

English: A group of instructional programs that describes the English language arts, including composition, creative writing, and the study of literature.

English as a Second Language (ESL): Programs that provide intensive instruction in English for students with limited English proficiency.

Enrollment: The total number of students registered in a given school unit at a given time, generally in the fall of a year.

Expected family contribution (EFC): The amount that a family is expected to pay toward meeting costs of postsecondary attendance (both students and parents of dependent students are expected to make contributions). This amount is determined through an analysis of need (i.e., the Congressional Methodology) and is based on taxable and nontaxable income and assets as well as family size, the number of family members attending postsecondary institutions, extraordinary medical expenses, and so forth. For dependent students, the EFC consists of both a parental contribution and a separately calculated student contribution. The minimum student contribution in 1988–89 was $700 for freshmen and $900 for other undergraduates.

Expenditures: Charges incurred, whether paid or unpaid, which are presumed to benefit the current fiscal year. For elementary/secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For institutions of higher education, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, extension of credit, or as agency transaction. Also, government expenditures include only external transactions, such as the provision of prerequisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions among the governments.

Academic support: This category of college expenditures includes expenditures for support services that are an integral part of the institution's primary missions of instruction, research, or public service. Includes expenditures for libraries, galleries, audio/visual services, academic computing support, ancillary support, academic administration, personnel development, and course and curriculum development.

Capital Outlay: The expenditures for property, and for buildings and alterations completed by school district staff or contractors.

Current expenditures (elementary/secondary): The expenditures for operating local public schools, excluding capital outlay and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs. Beginning in 1980–81, expenditures for state administration are excluded.

Current expenditures per pupil in enrollment: Current expenditures for the regular school term divided by the total number of students registered in a given school unit at a given time, generally in the fall of a year.

Current-fund expenditures (higher education): Money spent to meet current operating costs, including salaries, wages, utilities, student services, public services, research libraries, scholarships, fellowships, auxiliary enterprises, hospitals, and independent operations. Excludes loans, capital expenditures, and investments.

Educational and general expenditures: The sum of current-fund expenditures on instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, and awards from restricted and unrestricted funds.

Instruction: This category includes expenditures of the colleges, schools, departments, and other instructional divisions of higher education institutions, and expenditures for departmental research and public service, which are not separately budgeted. Includes expenditures for both credit and noncredit activities. Excludes expenditures for academic administration where the primary function is administration (e.g., academic deans).

Others: Outside of support services and capital outlay, the sum of all other current fund expenditures for community services, nonpublic school programs, adult education, community colleges, interest on school debt, and other expenditures.

Scholarships and fellowships: This category of college expenditures applies only to money given in the form of outright grants and trainee stipends to individuals enrolled in formal course work, either for credit or not. Aid to students in the form of tuition or fee remissions is included. College work-study funds are excluded and are reported under the program in which the student is working. In the tabulations in this volume, Pell grants are not included in this expenditure category.

Support Services: The sum of current fund expenditures on student services (e.g., guidance, health), instructional services (e.g., curriculum development, staff training), general and school administration, operation and maintenance, transportation, food services, and enterprise operations.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as enrollment, average daily attendance, or average daily membership.

Family income: The combined income of all family members 14 years old and older living in the household for the period of 1 year. Income includes money income from jobs; net income from business, farm, or rent; pensions; dividends; interest; social security payments; and any other money income.

Federal aid: Student financial aid whose source is the federal government. This aid can either be provided by or administered by a federal agency. Federal agencies providing aid include the Department of Education, Department of Health and Human Services, Department of Defense, Veterans Administration, and the National Science Foundation. Federal aid can be in the form of grants, loans, and work-study aid.

Federal funds: Amounts collected and used by the federal government for the general purposes of the government. There are four types of federal fund accounts: the general fund, special funds, public enterprise funds, and intragovernmental funds. The major federal fund is the general fund, which is derived from general taxes and borrowing. Federal funds also include certain earmarked collections, such as those generated by and used to finance a continuing cycle of business-type operations.

First-professional degree: A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is usually based on a program requiring at least 2 academic years of work prior to entrance and a total of at least 6 academic years of work to complete the degree program, including both prior-required college work and the professional program itself. By NCES definition, first-professional degrees are awarded in the fields of dentistry (D.D.S or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic (D.C. or D.C.M.), law (J.D.), and theological professions (M.Div. or M.H.L.).

First-time teachers: Individuals who are teaching full time in the Nation's school system for the first time. These teachers include recent college graduates, former substitute teachers, or individuals who had other jobs besides teaching either inside or outside the field of education.

Fiscal year: The yearly accounting period for the federal government, which begins on October 1 and ends on the following September 30. The fiscal year is designated by the calendar year in which it ends; for example, fiscal year 1992 begins on October 1, 1991, and ends on September 30, 1992. (From fiscal year 1844 to fiscal year 1976 the fiscal year began on July 1 and ended on the following June 30.)

Foreign languages: A group of instructional programs that describes the structure and use of language that is common or indigenous to individuals of the same community or nation, the same geographical area, or the same cultural traditions. Programs cover such features as sound, literature, syntax, phonology, semantics, sentences, prose, and verse, as well as the development of skills and attitudes used in communicating and evaluating thoughts and feelings through oral and written language.

Free lunch eligibles: The National School Lunch Program's assistance program for low income children. Families with school-age children who fall below the poverty level and have no other significant assets are eligible to receive government assistance in the form of free or reduced-price school lunches.

Full-time enrollment: The number of students enrolled in higher education courses with a total credit load equal to at least 75 percent of the normal full-time course load.

Full-time-equivalent (FTE) enrollment: For institutions of higher education, enrollment of full-time students, plus the full-time equivalent of part-time students as reported by institutions. In the absence of an equivalent reported by an institution, the FTE enrollment is estimated by adding one-third of part-time enrollment to full-time enrollment.

Full-time instructional faculty: Those members of the instruction/research staff who are employed full time as defined by the institution, including faculty with released time for research and faculty on sabbatical leave. Full-time counts exclude faculty who are employed to teach less than two semesters, three quarters, two trimesters, or two 4-month sessions; replacements for faculty on sabbatical leave or those on leave without pay; faculty for preclinical and clinical medicine; faculty who are donating their services; faculty who are members of military organizations and paid on a different pay scale from civilian employees; academic officers whose primary duties are administrative; and graduate students who assist in the instruction of courses.

Full-time worker: One who is employed for 35 or more hours per week, including paid leave for illness, vacation, and holidays. Hours may be reported either for a survey reference week, or for the previous calendar year, in which case they refer to the usual hours worked.

GED recipient: A person who has obtained certification of high school equivalency by meeting state requirements and passing an approved exam, which is intended to provide an appraisal of the person's achievement or performance in the broad subject matter areas usually required for high school graduation. (See General Educational Development Test.)

General Educational Development (GED) Test: A test administered by the American Council on Education as the basis for awarding a high school equivalency certification.

Geographic region: 1) The four regions used by the Bureau of Economic Analysis of the U.S. Department of Commerce, the National Assessment of Educational Progress, and the National Education Association (NEA) are as follows (note that the NEA designated the Central region as the Middle region in its classification):

Northeast
Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Central (Middle)
Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

Southeast
Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

West
Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oklahoma
Oregon
Texas
Utah
Washington
Wyoming

2) The regions used by the Bureau of the Census in Current Population Survey (CPS) tabulations are as follows:

Northeast
(New England)
Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut

(Middle Atlantic)
New York
New Jersey
Pennsylvania

Midwest
(East North Central)
Ohio
Indiana
Illinois
Michigan
Wisconsin

(West North Central)
Minnesota
Iowa
Missouri
North Dakota
South Dakota
Nebraska
Kansas

South
(South Atlantic)
Delaware
Maryland
District of Columbia
Virginia
West Virginia
North Carolina
South Carolina
Georgia
Florida

(East South Central)
Kentucky
Tennessee
Alabama
Mississippi

(West South Central)
Arkansas
Louisiana
Oklahoma
Texas

West
(Mountain)
Montana
Idaho
Wyoming
Colorado
New Mexico
Arizona
Utah
Nevada

(Pacific)
Washington
Oregon
California
Alaska
Hawaii

Government appropriation: An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Government grant or contract: Revenues from a government agency for a specific research project or other program.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

Graduate Record Examination (GRE): Multiple-choice examinations administered by the Educational Testing Service (ETS) and taken by applicants who plan to attend certain graduate schools. Two generalized tests are offered, plus specialized tests in a variety of subject areas. Ordinarily, a student will take only the specialized test that applies to the intended field of study.

Grants: Also known as scholarships, these are funds for postsecondary education that do not have to be repaid.

Gross Domestic Product (GDP): Gross national product less net property income from abroad. Both gross national product and gross domestic product aggregate only the incomes of residents of a nation, corporate and individual, derived directly from the current production of goods and services. However, gross national product also includes net property from abroad. (See also Gross National Product.)

Gross National Product (GNP): A measure of the money value of the goods and services available to the nation from economic activity. GNP can be viewed in terms of expenditure categories, which include purchases of goods and services by consumers and government, gross private domestic investment, and net exports of goods and services. The goods and services included are largely those bought for final use (excluding illegal transactions) in the market economy. A number of inclusions, however, represent imputed values, the most important of which is rental value of owner-occupied housing. GNP, in this broad context, measures the output attributable to the factors of production, labor, and property supplied by U.S. residents.

Group of Seven (G-7): This group is composed of seven industrialized nations with large economies: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

Guidance counselor: (See Staff, elementary/secondary education.)

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

High school program: A program of studies designed to prepare students for their postsecondary education and occupation. Four types of programs are usually distinguished as academic, vocational, general, and personal use. An academic program is designed to prepare students for continued study at a college or university. A vocational program is designed to prepare students for employment in one or more semiskilled, skilled, or technical occupations. A general program is designed to provide students with the understanding and competence to function effectively in a free society, and usually represents a mixture of academic and vocational components. A personal use program provides a student with general skills in areas such as health, religion, and military science.

Higher education: Study beyond secondary school at an institution that offers programs terminating in an associate's, bachelor's, or higher degree.

Higher education institutions (general definition): Institutions providing education above the instructional level of the secondary schools, usually beginning with grade 13. Typically, these institutions include colleges, universities, graduate schools, professional schools, and other degree-granting institutions.

Higher education price index: A price index that measures average changes in the prices of goods and services purchased by colleges and universities through current-fund education and general expenditures (excluding expenditures for sponsored research and auxiliary enterprises).

Humanities: Instructional programs in the following fields: area and ethnic studies, foreign languages, letters, liberal/general studies, multi/interdisciplinary studies, philosophy and religion, theology, and the visual and performing arts.

Independent operations: A group of self-supporting activities under the control of a college or university. For purposes of financial surveys conducted by the National Center for Education Statistics, this category is composed principally of federally funded research and development centers (FFRDC).

Inflation: An upward movement in general price levels that results in a decline of purchasing power.

Institutional support: The category of higher education expenditures that includes day-to-day operational support for colleges, excluding expenditures for physical plant operations. Examples of institutional support include general administrative services, executive direction and planning, legal and fiscal operations, and community relations.

Instruction: (See Expenditures.)

Instructional expenditures (elementary/secondary): Current expenditures for activities directly associated with the interaction between teachers and students. These include teacher salaries and benefits, supplies (such as textbooks), and purchased instructional services.

Instructional staff: Full-time-equivalent number of positions, not the number of different individuals occupying the positions during the school year. In local schools, includes all public elementary and secondary (junior and senior high) day-school positions that are in the nature of teaching or in the improvement of the teaching-learning situation. Includes consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. Excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

International Standard Classification of Education (ISCED) levels: The International Standard Classification of Education (ISCED) was designed as an instrument for presenting statistics on education internationally. Many countries report education statistics to UNESCO and the Organization for Economic Co-operation and Development (OECD) using the ISCED. In this classification system, education is divided into several levels. The levels that follow are presented in *The Condition of Education*.

> *Education preceding the first level (early childhood education)* where it is provided, usually begins at age 3, 4, or 5 (sometimes earlier) and lasts from 1–3 years. For the United States, this would be mostly nursery schools and kindergarten classes.
>
> *Education at the first level (primary education)* usually begins at age 5, 6, or 7 and lasts for about 5 or 6 years. For the United States, the first level starts with grade 1 and ends with grade 6.
>
> *Education at the second level (lower secondary education)* begins at about age 11 or 12 and lasts for about 3 years. For the United States, the second level starts with grade 7 and ends with grade 9.
>
> *Education at the third level (upper secondary education)* begins at about age 14 or 15 and lasts for approximately 3 years. For the United States, the third level starts with grade 10 and ends with grade 12.
>
> *Education at the fifth level (nonuniversity higher education)* is provided at community colleges, vocational-technical colleges, and other degree-granting institutions in which programs typically take 2 years or more, but less than 4 years to complete.
>
> *Education at the sixth level (university higher education)* is provided in undergraduate programs at 4-year colleges and universities in the United States and, generally, at universities in other countries. Completing education at the third level (upper secondary education) is usually required as a minimum condition for admission. Admission is competitive in most cases.

Education at the seventh level (graduate and professional higher education) is provided in graduate and professional schools that generally require a university diploma as a minimum condition for admission.

Education at the ninth level (undistributed) is a classification reserved for enrollments, expenditures, or programs that cannot be unambiguously assigned to one of the aforementioned levels. Some countries, for example, assign nongraded special education or recreational nondegree adult education programs to this level. Other countries assign nothing to this level, preferring instead to allocate enrollments, expenditures, and programs to levels as best they can.

Kindergarten: Includes transitional kindergarten, kindergarten, and pre-first-grade students.

Labor force: Individuals employed as civilians, unemployed, or in the armed services during the survey week. The "civilian labor force" is composed of all civilians classified as employed or unemployed. (See Employed and Unemployed.)

Life sciences: Life sciences are instructional programs that describe the systematic study of living organisms. Life sciences include biology, biochemistry, biophysics, and zoology.

Limited-English-proficient: A concept developed to assist in identifying those language-minority students (children from language backgrounds other than English) who need language assistance services, in their own language or in English, in the schools. The Bilingual Education Act, reauthorized in 1988 (P.L. 100-297), describes a limited-English-proficient (LEP) student as one who

1) meets one or more of the following conditions:
    a) a student who was born outside the United States or whose native language is not English;
    b) a student who comes from an environment where a language other than English is dominant; or
    c) a student who is an American Indian or Alaskan Native and comes from an environment where a language other than English has had a significant impact on his/her level of English language proficiency; and
2) has sufficient difficulty speaking, reading, writing, or understanding the English language to deny him or her the opportunity to learn successfully in English-only classrooms.

In practice, many ways of making this determination about an individual student are being used by school systems across the United States. These include various combinations of home language surveys, informal teacher determination, formal interviews, and a number of types of assessment tests for classification, placement, and monitoring of progress.

Loan: Borrowed money that must be repaid.

Local education agency (LEA): (See School district.)

Master's degree: A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the Master of Arts degree, or M.A., and the Master of Science degree, or M.S., is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, and an M.P.A. in public administration. A third type of master's degree is awarded in professional fields for study beyond the first-professional degree, for example, the Master of Laws (LL.M.) and Master of Science in various medical specializations.

Mathematics: A group of instructional programs that describes the science of logical symbolic language and its applications.

Metropolitan population: The population residing in metropolitan statistical areas (MSAs). (See Metropolitan Statistical Area.)

Metropolitan Statistical Area (MSA): A large population nucleus and the nearby communities that have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and metropolitan character.

In New England, towns and cities, rather than counties, are the basic units. MSAs are designated by the Office of Management and Budget. An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. An MSA also includes such additional outlying counties that meet specified criteria relating to metropolitan character and level of commuting of workers into the central city or counties. Specified criteria governing the definition of MSAs recognized before 1980 are published in *Standard Metropolitan Statistical Areas: 1975*, issued by the Office of Management and Budget. New MSAs were designated when 1980 and 1990 counts showed that they met one or both of the following criteria:

1) Included a city with a population of at least 50,000 within their corporate limits; or
2) Included a Census Bureau-defined urbanized area (which must have a population of at least 50,000) and a total MSA population of at least 100,000 (or, in New England, 75,000).

Minority: Any racial/ethnic group that is nonwhite is considered minority. (See Racial/ethnic group.)

Modal grade: The modal grade is the year of school in which the largest proportion of students of a given age are enrolled. Enrolled persons are classified according to their relative progress in school, that is, whether the grade or year in which they were enrolled was below, at, or above the modal (or typical) grade for persons of their age at the time of the survey.

A Nation at Risk: A report published by the U.S. Department of Education in 1983 highlighting deficiencies in knowledge of the Nation's students and population as a whole in areas such as literacy, mathematics, geography, and basic science.

Natural sciences: A group of fields of study that includes the life sciences, physical sciences, and mathematics.

Nonmetropolitan residence group: The population residing outside metropolitan statistical areas. (See Metropolitan statistical area.)

Nonsupervisory instructional staff: Persons such as curriculum specialists, counselors, librarians, remedial specialists, and others possessing education certification but not responsible for day-to-day teaching of the same group of pupils.

Nontenure-track faculty: Faculty members who were either not on the tenure track or whose faculty status lacked a tenure system at the sampled institution.

Nursery school: (See Preprimary.)

Obligations: Amounts of orders placed, contracts awarded, services received, or similar legally binding commitments made by federal agencies during a given period that will require outlays during the same or some future period.

Orientation (private school): The group or groups, if any, with which a private elementary/secondary school is affiliated, or from which it derives subsidy or support. Such organizations include the following:

> **Catholic school:** A private school over which a Roman Catholic church group exercises some control or provides some form of subsidy. Catholic schools for the most part include those operated or supported by: a parish, a group of parishes, a diocese, or a Catholic religious order.
>
> **Other religious school:** A private school that is affiliated with an organized religion or denomination other than Roman Catholicism or that has a religious orientation other than Catholicism in its operation and curriculum.
>
> **Nonsectarian school:** A private school whose curriculum and operation are independent of religious orientation and influence in all but incidental ways.

Other technical/professional fields: A group of occupationally oriented fields, other than business, computer science, education, and engineering, which includes agriculture and agricultural sciences, architecture, communications, communications technologies, home economics, law, library and archival sciences, military sciences, parks and recreation, protective services, and public affairs.

Outlays: The value of checks issued, interest accrued on the public debt, or other payments made, net of refunds and reimbursements.

Parent: In the Current Population Survey, a parent is defined as a biological, adoptive, step, or foster parent, or a legal guardian. In other words, "parents" have some biological or legal association to the child. A parent is not necessarily the head of the household. A parent's highest education level was determined by merging information from the parent's record with information from their children's record. When no parent resided in the household, information from the legal guardian's record was merged with information from the children's record.

Part-time enrollment: The number of students enrolled in higher education courses with a total credit load less than 75 percent of the normal full-time credit load.

Part-time worker: One who is employed for 1–34 hours a week, including paid leave for illness, vacation, and holidays. Hours may be reported either for a survey reference week, or for the previous calendar year, in which case they refer to the usual hours worked.

Part-year worker: One who was employed at least 1 week but fewer than 50 weeks during the previous calendar year, including paid leave for illness, vacation, or other reasons.

Percentile (score): A value on a scale of zero to 100 that indicates the percent of a distribution that is equal to or below it. For example, a score in the 95th percentile is a score equal to or better than 95 percent of all other scores.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits and military pensions, but excludes transfers among persons.

Physical sciences: Physical sciences are instructional programs that describe inanimate objects, processes, or matter, energy, and associated phenomena. Physical sciences include astronomy, astrophysics, atmospheric sciences, chemistry, geology, physics, planetary science, and science technologies.

Portfolio: A collection of student-generated artifacts. Portfolios are used to provide evidence over a period of time about the range and extent of a student's performance and growth.

Postsecondary education: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes vocational and adult basic education programs.

Poverty level: Poverty status is based on reports of family income on the March Current Population Survey. Families or individuals with gross incomes below the poverty threshold are classified as below the poverty level. Poverty thresholds in 1992 ranged from $7,143 for a person living alone to $28,745 for a family of four or more.

Prekindergarten: (See Preprimary.)

Preprimary: Elementary education programs for children who are too young for first grade. Includes center-based programs and kindergarten.

Private school or institution: A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government, which is usually not supported primarily by public funds, and is not operated by publicly elected or appointed officials.

Proprietary institution: An educational institution that is under private control but whose profits derive from revenues subject to taxation.

Purchasing Power Parity (PPP) Indices: Purchasing Power Parity (PPP) exchange rates, or indices, are the currency exchange rates that equalize the purchasing power of different currencies, meaning that when a given sum of money is converted into different currencies at the PPP exchange rates, it will buy the same basket of goods and services in all countries. PPP indices are the rates of currency conversion which eliminate the difference in price levels among countries. Thus, when expenditures on GDP for different countries are converted into a common currency by means of PPP indices, they are expressed at the same set of international prices, so that comparisons among countries reflect only differences in the volume of goods and services purchased.

Racial/ethnic group: Classification indicating general racial or ethnic heritage based on self-identification, as in data collected by the Bureau of the Census, or on observer identification, as in data collected by the Office for Civil Rights. These categories are in accordance with the Office of Management and Budget standard classification scheme presented:

American Indian/Alaskan Native: A person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition.

Asian/Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

Black: A person having origins in any of the black racial groups in Africa. Normally excludes persons of Hispanic origin. Those measures that do not exclude persons of Hispanic origin are noted accordingly.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. Normally excludes persons of Hispanic origin. Those measures that do not exclude persons of Hispanic origin are noted accordingly.

Reentrants: Teachers who left the school system for a period of time, and have now returned to classroom teaching.

Remedial course (postsecondary): Courses provided in reading, writing, or mathematics for college students lacking those skills necessary to perform college-level work at the level required by the institution; thus, what constitutes remedial courses varies from institution to institution.

Remedial education: Instruction for a student lacking the reading, writing, or mathematics skills necessary to perform college-level work at the level required by the attended institution.

Revenues: All funds received from external sources, net of refunds, and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded, as are funds received from the issuance of debt, liquidation of investments, and nonroutine sale of property.

Auxiliary enterprises: This category includes those essentially self-supporting operations that exist to furnish a service to students, faculty, or staff, and that charge a fee that is directly related to, although not necessarily equal to, the cost of the service. Examples are residence halls, food services, college stores, and intercollegiate athletics.

Current-fund revenues (higher education): Money received during the current fiscal year from revenue that can be used to pay obligations currently due, and surpluses reappropriated for the current fiscal year.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

Salary workers: Any person who worked one or more days during the previous year and was paid on the basis of a yearly salary is considered a salary worker.

Scholarships and fellowships: (See Expenditures.)

Scholastic Assessment Test (SAT): An examination administered by the Educational Testing Service and used to predict the facility with which an individual will progress in learning college-level academic subjects.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School district: An education agency at the local level that exists primarily to operate public schools or to contract for public school services. Synonyms are "local basic administrative unit" and "local education agency."

School year: The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 through June 30.

Science: The body of related courses concerned with knowledge of the physical and biological world and with the processes of discovering and validating this knowledge.

Secondary school: A school that has any span of grades beginning with the next grade following an elementary or middle school (usually grade 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Social and behavioral sciences: A group of scientific fields of study that includes anthropology, archeology, criminology, demography, economics, geography, history, international relations, psychology, sociology, and urban studies.

Social studies: A group of instructional programs that describes the substantive portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.

Socioeconomic status (SES): The SES quartile variable used for both High School and Beyond and the National Education Longitudinal Study of 1988 was built using parental education level, parental occupation, family income, and household items. Students were placed in quartiles based on their standardized composite score. By definition, one quarter of each cohort will reside in the bottom SES quartile, even if education levels, income, and the number of persons in more prestigious occupations increase. The terms high, middle, and low SES refer to the upper, middle two, and lower quartiles of the weighted SES composite index distribution.

Staff assignments, elementary and secondary school:

District administrative support staff: Personnel who are assigned to the staffs of the district administrators. They may be clerks, computer programmers, and others concerned with the functioning of the entire district.

District administrators: The chief executive officers of education agencies (such as superintendents and deputies) and all others with district-wide responsibility. Such positions may be business managers, administrative assistants, coordinators, and the like.

Guidance counselors: Professional staff whose activities involve counseling students and parents, consulting with other staff members on learning problems, evaluating the abilities of students, assisting students in personal and social development, providing referral assistance, and working with other staff members in planning and conducting guidance programs for students.

Instructional (teacher) aides: Those staff members assigned to assist a teacher with routine activities associated with teaching (i.e., those activities requiring minor decisions regarding students, such as monitoring, conducting rote exercises, operating equipment, and clerking). Volunteer aides are not included in this category.

Librarians: Staff members assigned to perform professional library service activities such as selecting, acquiring, preparing, cataloging, and circulating books and other printed materials; planning the use of the library by students, teachers, and other members of the instructional staff; and guiding individuals in their use of library books and materials that are maintained separately or as part of an instructional materials center.

Other support services staff: All staff not reported in other categories. This group includes media personnel, social workers, data processors, health maintenance workers, bus drivers, security, cafeteria workers, and other staff.

School administrators: Those staff members whose activities are concerned with directing and managing the operation of a particular school. They may be principals or assistant principals, including those who coordinate school instructional activities with those of the local education agency (LEA) and other appropriate units.

Stopout: (See Dropout.)

Student membership: The count of students enrolled (at a particular school, district, or county, etc.) on or about October 1.

Subbaccalaureate degree: Award granted for the successful completion of studies at either 2-year or less-than-2-year institutions. Subbaccalaureate degrees typically include associate's degrees and certificates.

Support services expenditures (elementary/secondary): Current expenditures for activities which support instruction. These services include school building operation and maintenance, school administration, student support services, student transportation, instructional staff support, school district administration, business services, research, testing, and data processing.

Tax expenditures: Losses of tax revenue attributable to provisions of the federal income tax laws that allow a special exclusion, exemption, or deduction from gross income or provide a special credit, preferential rate of tax, or a deferral of tax liability affecting individual or corporate income tax liabilities.

Technical/professional fields: A group of occupationally oriented fields of study, other than engineering and computer science, that includes agriculture and agricultural sciences, architecture, business and management, communications, education, health sciences, home economics, law, library and archival sciences, military sciences, parks and recreation, protective services, and public affairs.

Tenure-track faculty: Faculty members who were either tenured or on the tenure track at their institution.

Total expenditure per pupil in average daily attendance: Includes all expenditures allocable to per pupil costs divided by average daily attendance. These allocable expenditures include current expenditures for regular school programs, interest on school debt, and capital outlay. Beginning in 1980–81, expenditures for state administration are excluded and expenditures for other programs (summer schools, community colleges, and private schools) are included.

Tuition and fees: A payment or charge for instruction or compensation for services, privileges, or the use of equipment, books, or other goods.

Type of higher education institutions:

4-year institution: An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a baccalaureate degree. In some tables a further division between universities and other 4-year institutions is made. A "university" is a postsecondary institution that typically comprises one or more graduate professional schools. (See also University.)

2-year institution: An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate's degree or is principally creditable toward a baccalaureate degree.

Undergraduate students: Students registered at an institution of higher education in a program leading to a baccalaureate degree or other formal award below the baccalaureate such as an associate degree.

Unemployed: Civilians who had no employment but were available for work and 1) had engaged in any specific job-seeking activity within the past 4 weeks, 2) were waiting to be called back to a job from which they had been laid off, or 3) were waiting to report to a new wage or salary job within 30 days.

University: An institution of higher education that consists of a liberal arts college, a diverse graduate program, and usually two or more professional schools or faculties, and is empowered to confer degrees in various fields of study.

Urbanicity:

1) In the Schools and Staffing Survey, school location is categorized based on the classification in both the Common Core of Data (CCD) and the Quality Education data (QED), as drawn from U.S. Census data and definitions. The results are summarized in three variables:
   Central city: central city of an MSA (Metropolitan Statistical Area).
   Urban fringe/large town: area surrounding a central city but within a county constituting an MSA.
   Rural/small town: outside an MSA.

2) In the High School and Beyond Survey, urbanicity is classified based on the Curriculum Information Center code as follows:
   Urban: within a central city of an MSA.
   Suburban: within an MSA but outside the central city area.
   Rural: outside a designated MSA.

Vocational education: Organized educational programs, services, and activities that are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career, requiring other than a baccalaureate or advanced degree.

Work-study: A generic term for programs designed to provide part-time employment as a source of funds to pay for postsecondary education as well as a federal program that is administered through postsecondary institutions.

Year-round worker: One who was employed at least 50 weeks during the previous calendar year, including paid leave for illness, vacation, or other reasons.

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NCES Help

The National Center for Education Statistics is the Nation's principal education statistics agency. Our Web site provides access to a wide range of statistical information about education in the United States and other nations.

The NCES home page includes:

A ***Commissioner's Remarks*** section introducing you to the NCES Web site and outlining the Center's mission.

What's New offers a description of recently released reports, databases, and upcoming conferences.

Search NCES provides a way of finding all resources on the Web site related to a particular topic using keywords.

Publications allows direct access to NCES reports by subject, number, date, or publication series (e.g., ***Issue Briefs*** or the ***Condition of Education***).

Data provides direct access to NCES CD-ROMs and other data products, which can either be purchased from GPO or used online.

Surveys allows direct access to all resources on the Web site by survey (e.g., the Common Core of Data or the Schools and Staffing Survey).

Subjects A-Z is a topical index to all resources on the Web site.

Partners lists a number of organizations with which NCES is working collaboratively on a variety of projects.

Education at a Glance provides direct links to NCES materials that describe or analyze education topics such as crime in public schools, access, and costs of higher education.

FAQ Section provides responses to questions about NCES data.

Locating Staff provides address information for individual NCES staff members.

NCES Help describes software capabilities required to fully utilize the NCES Web site.

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The address of the NCES Home Page is: ***http://nces.ed.gov/***

Addresses for some of the most interesting or popular information are:

http://nces.ed.gov/pubs98/condition98/index.html
http://nces.ed.gov/pubs/digest97/index.html
http://nces.ed.gov/naep/index.html
http://nces.ed.gov/timss/index.html
http://nces.ed/gov/ipeds/index.html
http://nces.ed.gov/ccd/index.html

Future plans include improving our search capabilities and allowing customers to retrieve portions of our data bases by user-defined selection criteria.

The National Education Data Resource Center

The National Education Data Resource Center (NEDRC) was established by the U.S. Department of Education's National Center for Education Statistics (NCES) to serve the education information needs of teachers, researchers, policymakers, and others who need access to the most current education data. Data sets for some 16 studies maintained by NCES are currently available through NEDRC and there are plans to include additional databases, as well as to link database files to allow for higher level analyses.

You can contact the NEDRC to request specific analyses of education data sets; assistance for on-site research at NEDRC facilities; tables, graphic materials, or detailed reports from education studies and surveys; and limited programming analysis (e.g., cross tabulations). The following studies are currently available through NEDRC:

- Schools and Staffing Survey (SASS)
- Private School Survey (PSS)
- National Survey of Postsecondary Faculty (NSOPF)
- Common Core of Data (CCD)
- High School and Beyond (HS&B)
- National Postsecondary Student Aid Study (NPSAS)
- National Longitudinal Study (NLS)
- National Education Longitudinal Study (NELS:88)
- Integrated Postsecondary Education Data System (IPEDS)
- Recent College Graduates Study (RCG)
- Beginning Postsecondary Students (BPS)
- National Household Education Survey (NHES)
- Public Library Survey (PLS)
- Academic Library Survey (ALS)
- National Assessment of Educational Progress (NAEP)

To request research information from the NEDRC, call 703-845-3151, fax 703-820-7464, or E-mail the NEDRC at nedrc@inet.ed.gov. To receive the information you need, make your request as specific as possible, including the name and year of the data set (e.g., NELS:88), specific survey (e.g., NELS: Parent Questionnaire), population of interest (e.g., public school teachers with one year of experience), data elements (e.g., set and subject taught), and analysis type (e.g., cross tabulations). Please let us know how you wish to receive the requested material: diskette, hard copy, or via E-mail.

Selected Publications of the National Center for Education Statistics

Findings from the Condition of Education series:

Minorities in Higher Education: Findings from the Condition of Education 1996
GPO #065-000-00978-1, $4.50

Public and Private Schools: How Do They Differ? Findings from the Condition of Education 1997
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GPO #065-000-01069-1, $4

Preparation for Work: Findings from the Condition of Education 1996
GPO #065-000-00972-2, $3.75

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GPO #065-000-00971-4, $4.50

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Academic Libraries: 1994
GPO #065-000-01120-4, $4.75

Advanced Telecommunications in U.S. Private Schools: K–12
GPO #065-000-01036-4, $7

America's Children: Key National Indicators of Well-Being
GPO #065-000-01162-0, $7

America's Teachers: Profile of a Profession, 1993-94
GPO #065-000-01046-1, $25

Approaching Kindergarten: A Look at Preschoolers in the United States
GPO #065-000-00807-6, $3

Campus Crime and Security at Postsecondary Education Institutions
GPO #065-000-00973-1, $11

Characteristics of American Indian and Alaska Native Education
GPO #065-000-00982-0, $20

Characteristics and Attitudes of Instructional Faculty and Staff in the Humanities
GPO #065-000-01072-1, $12

Characteristics of Children's Early Care and Education Programs: Data from the 1995 National Household Education Survey
GPO #065-000-01157-3, $14

Chartbook of Degrees Conferred, 1969-70 to 1993-94
GPO #065-000-01094-1, $18

The Condition of Education, 1998
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Confronting the Odds: Students At Risk and the Pipeline to Higher Education
GPO #065-000-01099-2, $8

Developments in School Finance 1997
GPO #065-000-01169-7, $17

Digest of Education Statistics, 1997
GPO #065-000-01098-4, $44

Directory of Federal Libraries and Information Centers, 1994
GPO #065-000-01056-9, $9.50

1997 Directory of Postsecondary Institutions: Volume I: Degree-Granting Institutions
GPO #065-000-01130-0, $24

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Dropout Rates in the United States: 1996
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Some publications are produced annually: ***The Condition of Education*** in June; ***Dropout Rates in the United States*** in November; ***Digest of Education Statistics*** in November; and ***Projections of Education Statistics*** in December. Please check with the **Order Desk** at the U.S. **Government Printing Office** for information on the latest edition. The telephone number is **202–512–1800. The U.S. Government Printing Office (GPO) order blank is on a later page.** Most publications are available via the NCES Home Page at: ***http://nces.ed.gov/pubsearch/***

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